PMC-MD55

SERVICE MANUAL

Ver 1.1 1999. 08

US Model
Canadian Model
AEP Model
UK Model



U.S. and foreign patents licensed form Dolby Laboratories Licensing Corporation.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	KSM-213CGP
	Optical Pick-up Name	KSS-213C
MD Section	Model Name Using Similar Mechanism	MDS-JB920
	MD Mechanism Type	MDM-5A
	Base Unit Name	MBU-5A
	Optical Pick-up Name	KMS-260A

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 4-ohm loads, both channels driven from 100 - 10,000 Hz; rated 7 W per channel-minimum RMS power, with no more than 10 % total harmonic distortion in AC operation.

Super woofer with 4-ohm loads, driven at 70 Hz; rated 30 W minimum RMS power, with no more than 10 % total harmonic distortion in AC operation.

Other Specifications

CD player section

System
Compact disc digital audio system
Laser diode properties
Material: GaAlAs
Wave length: 785 nm
Emission duration: Continuous
Laser output: Less than 44.6 μW
(This output is the value measured at a distance of about 200 mm from the objetive lens surface on the optical pick-up block with 7 mm aperture.)
Spindle speed
200 r/min (rpm) to 500 r/min (rpm) (CLV)
Number of programme positions
2
Frequency response
20 - 20,000 Hz +1/–1 dB
Wow and flutter
Below measurable limit

Radio section

Frequency range
FM: 87.6 - 108 MHz (US, Canadian)
87.5 - 108 MHz (AEP, UK)
AM: 530 - 1,710 kHz (US, Canadian)
MW: 531 - 1,602 kHz (AEP, UK)
LW: 153 - 279 kHz (AEP, UK)

Antennas
FM: Lead antenna
AM (MW/LW): Loop antenna

MD player section

System
Minidisc digital audio system
Disc
MiniDisc
Laser diode properties
Material: GaAlAs
Wave length: 785 nm
Emission duration: Continuous
Laser output: Less than 44.6 μW
(This output is the value measured at a distance of about 200 mm from the objetive lens surface on the optical pick-up block with 7 mm aperture.)
Recording/playback time
Maximum 74 minutes (with MDW-74)
Revolutions
400 rpm to 900 rpm (CLV)
Error correction
Advanced Cross Interleave Reed Solomon Code (ACIRC)
Sampling frequency
44.1 kHz
Coding
Adaptive TRansform Acoustic Coding (ATRAC)
Modulation system
EFM (Eight-to-Fourteen Modulation)

– Continued on next page –

MICROFILM

PERSONAL MINIDISC SYSTEM

SONY®

Number of programme positions
2 stereo programme positions
Frequency response
20 - 20,000 Hz +1/−2 dB
Signal-to-noise ratio
Over 80 dB (during playback)
Wow and flutter
Below measurable limit

Super woofer

Speaker
Woofer: 10 cm (4 in.) dia., 4.0 ohms, cone type
Power output
30 W (at 100 Hz)
Power consumption
AC 28 W
Dimensions (incl. projecting parts)
Approx. 172 × 181 × 231 mm (w/h/d)
(6 7/8 × 7 1/4 × 9 1/8 inches)
Mass
Approx. 3.6 kg (7 lb. 15 oz.)

General

Speaker
Full-range : 8 cm (3 in.) dia., 4 ohms cone type (2)
Inputs
LINE IN (stereo minijack): Sensitivity 436 mV/ 870 mV
Outputs
Headphones jack (stereo minijack) (1):
For 32 ohms impedance headphones
Maximum power output
7 W+7 W
Power requirements
For personal minidisc system:
120 V AC, 60 Hz (US, Canadian)
230 V AC, 50 Hz (AEP, UK)
For remote controller:
3 V DC, 2 size AA (R6) batteries
Power consumption
34 W
Dimensions (incl. projecting parts)
Player: approx. 152 × 189 × 235 mm (w/h/d)
(6 × 7 1/2 × 9 3/8 inches)
Left speaker: approx. 139 × 181 × 235 mm
(w/h/d) (5 1/2 × 7 1/4 × 9 3/8 inches)
Right speaker: approx. 139 × 181 × 235 mm
(w/h/d) (5 1/2 × 7 1/4 × 9 3/8 inches)
Mass
Player: approx. 2.9 kg (6 lb. 6 oz.)
Left speaker: approx. 2.8 kg (6 lb. 3 oz.)
Right speaker: approx. 1.4 kg (3 lb. 1 oz.)
Supplied accessories
Remote controller (1)
FM lead antenna (1)
AM (MW/LW) loop antenna (1)
Audio connecting cord (2)

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

TABLE OF CONTENTS

SECTION 1
SERVICING NOTES

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

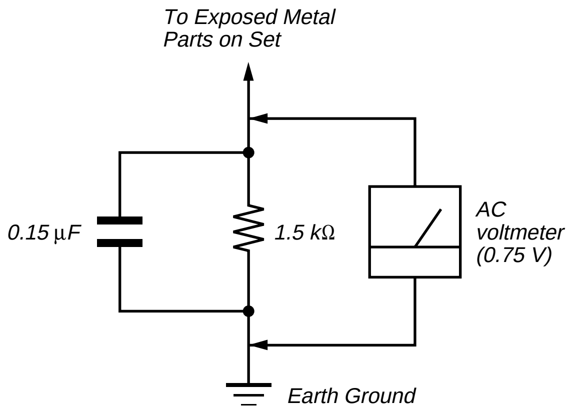
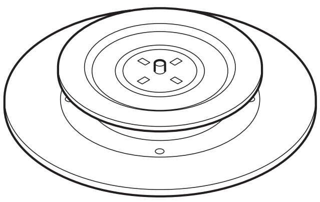


Fig. A. Using an AC voltmeter to check AC leakage.

CHUCK PLATE JIG ON REPAIRING

On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

- Code number of Chuck Plate Jig: X-4918-255-1



CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

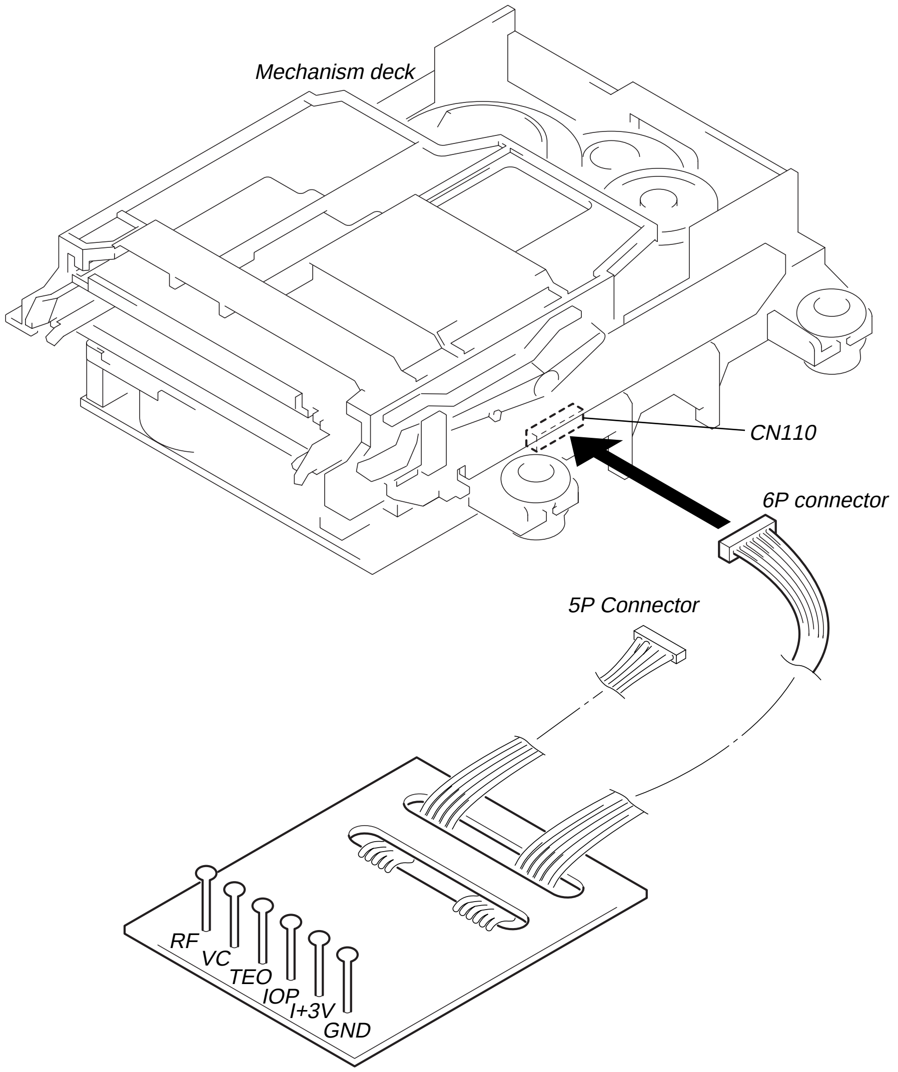
Flexible Circuit Board Repairing

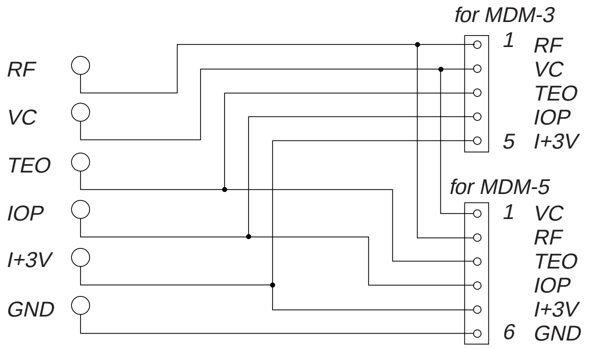
- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

JIG FOR CHECKING BD BOARD WAVEFORM

The special jig (J-2501-149-A) is useful for checking the waveform of the BD board. The names of terminals and the checking items to be performed are shown as follows.

GND : Ground
I+3V : For measuring IOP (Check the deterioration of the optical pick-up laser)
IOP : For measuring IOP (Check the deterioration of the optical pick-up laser)
TEO : TRK error signal (Traverse adjustment)
VC : Reference level for checking the signal
RF : RF signal (Check jitter)





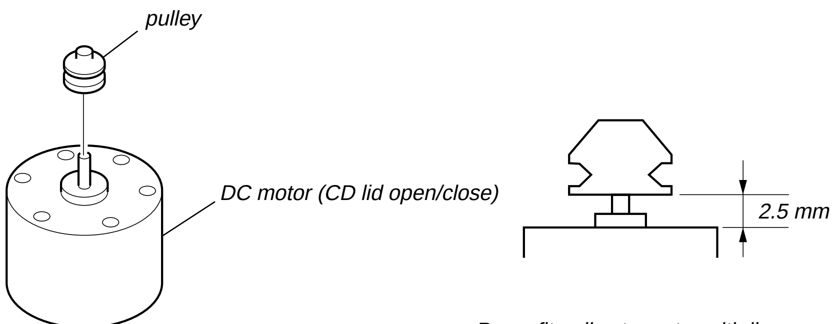
CHECKS PRIOR TO PARTS REPLACEMENT AND ADJUSTMENTS (for MD Section)

Before performing repairs, perform the following checks to determine the faulty locations up to a certain extent.
Details of the procedures are described in “5 Electrical Adjustments”.

	Criteria for Determination (Unsatisfactory if specified value is not satisfied)	Measure if unsatisfactory:
Laser power check (6-1 : See page 23)	• 0.9 mW power Specified value : 0.84 to 0.92 mW • 7.0 mW power Specified value : 6.8 to 7.2 mW	• Clean the optical pick-up • Adjust again • Replace the optical pick-up
	IOP (at 7mW) • Labeled on the optical pickup IOP value ± 10%	• Replace the optical pick-up
Focus bias check (6-2 : See page 23)	• Error rate check Specified value : a. For points A and B C1 error : About 200 ADER : Below 2 b. For point C C1 error : Below 50 ADER : Below 2	• Replace the optical pick-up
C PLAY check (6-3 : See page 23)	• Error rate check Specified value : a. When using test disc (MDW-74/AU-1) C1 error : Below 80 ADER : Below 2 b. When using check disc (TDYS-1) C1 error : Below 50	• Replace the optical pick-up
Self-recording/playback check (6-4 : See page 23)	• CPLAY error rate check Specified value : C1 error : Below 80 ADER : Below 2	If always unsatisfactory: • Replace the overwrite head • Check for disconnection of the circuits around the overwrite head
		If occasionally unsatisfactory: • Check if the overwrite head is distorted • Check the mechanism around the sled

Note:
The criteria for determination above is intended merely to determine if satisfactory or not, and does not serve as the specified value for adjustments. When performing adjustments, use the specified values for adjustments.

NOTE ON MOUNTING PULLY

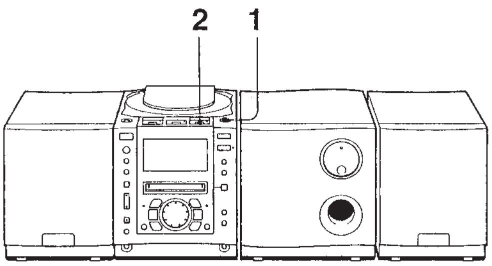


Press fit pulley to motor with jig.

SECTION 2
GENERAL

This section is extracted from instruction manual.

Playing a CD



For hookup instructions, see pages 53 - 58.

1

CD OPEN/CLOSE

Press ≜ CD OPEN/CLOSE (direct power-on) and place the CD on the CD compartment.



With the label side up

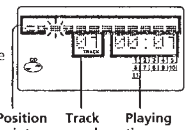
2

■
►II CD

Press CD ►II (CD ► on the remote).

The lid of the CD compartment closes and the player plays all the tracks once.

Display

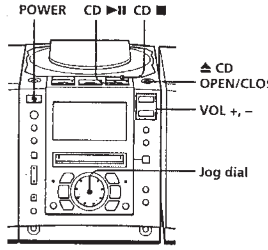


Position pointer Track number Playing time

Tips

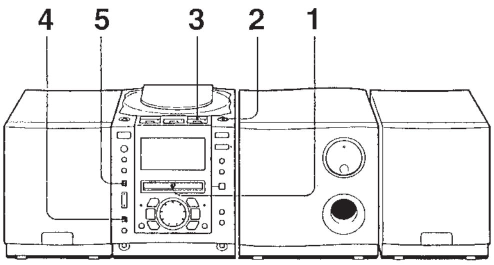
- Next time you want to listen to a CD, just press CD ►II. The player turns on automatically and starts playing the CD.
- **What is the position pointer in the display?** It shows about where on the CD track the player is playing.
- When opening or closing the lid of the CD compartment, be careful not to pinch your fingers, etc., between the lid and the player. If pinched, press ≜ CD OPEN/CLOSE again to open the lid.

Use these buttons for additional operations



To	Do this
adjust the volume	Press VOL +, –
stop playback	Press CD ■.
pause playback	Press CD ►II (CD II on the remote). Press the button again to resume play after pause.
go to the next track	Turn the jog dial clockwise. (On the remote, press ►►I.)
go back to the previous track	Turn the jog dial counterclockwise. (On the remote, press I◄◄.)
remove the CD	Press ≜ CD OPEN/CLOSE.
turn on/off the player	Press POWER.

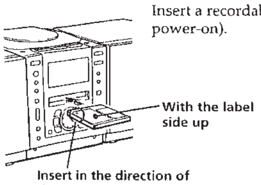
Recording a whole CD
(Synchronized recording)



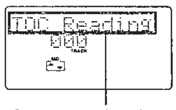
For hookup instructions, see pages 53 - 58.

1

Insert a recordable MD (direct power-on).



Display



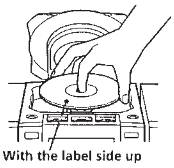
After "TOC Reading" is displayed, the disc name will be displayed if it is labeled.

2

CD OPEN/CLOSE

Press ≜ CD OPEN/CLOSE and place the CD on the CD compartment.

Press ≜ CD OPEN/CLOSE again to close the CD compartment.

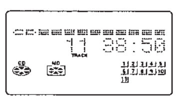


With the label side up

3

■
►II CD

Press CD ■.



4

HIGH SPEED

To record at high speed, press HIGH SPEED.

The indicator on the button lights up.

To record at normal speed, skip this step.

5

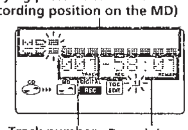
SYNCHRO REC CD►MD

Press SYNCHRO REC CD ► MD.

The player starts recording automatically.

If the MD has any previous recording, recording will be made from the last recorded position.

Position pointer (showing playing position on the CD and recording position on the MD)



Track number of MD Remaining recording time of MD

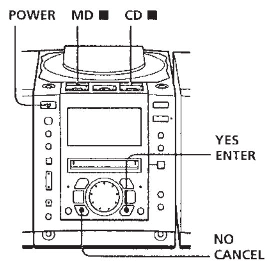
Notes

- TOC EDIT After you stop recording, **do not disconnect the AC power cord or move the player while "TOC EDIT" is flashing in the display.** If you do so, recording may not be done properly.
- When you record a whole CD, you cannot pause recording.

Tips

- Adjusting the volume or the audio emphasis (page 62) will not affect the recording level. Keep the volume at a moderate level so as to prevent the sound from skipping.
- To record over the previous recording, see page 31.
- Once the clock is set, the recording date and time are stamped automatically (page 46).
- You can label an MD or a track during recording (page 42).

Use these buttons for additional operations



To	Press
stop recording	MD ■ or CD ■
turn on/off the player	POWER

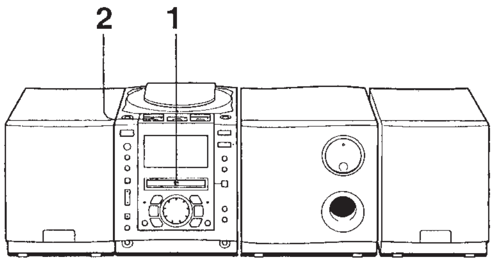
If "CD>MD OK?" alternates with time display

There is not enough space on the MD to record the whole CD.

If it is all right to record as much as possible and cancel recording of some tracks, press YES•ENTER. To stop recording, press NO•CANCEL.

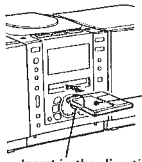
If any other messages are displayed, see page 72.

Playing an MD

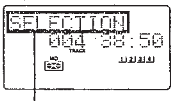


For hookup instructions, see pages 53 - 58.

1



Insert the MD (direct power-on).

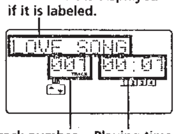


2



Press MD ►II (MD ► on the remote).

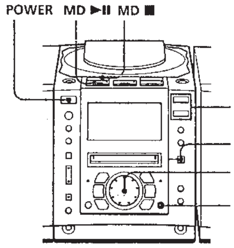
The player plays all the tracks once.



Tip

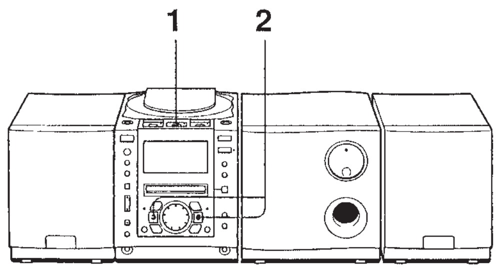
Next time you want to listen to an MD, just press MD ►II. The player turns on automatically and starts playing the MD.

Use these buttons for additional operations



To	Do this
adjust the volume	Press VOL +, –
stop playback	Press MD ■.
pause playback	Press MD ►II (MD II on the remote). Press the button again to resume play after pause.
go to the next track	Turn the jog dial clockwise. (On the remote, press ►►I.)
go back to the previous track	Turn the jog dial counterclockwise. (On the remote, press I◄◄.)
remove the MD	Press ≜ MD EJECT.
turn on/off the player	Press POWER.
check the playing position in the display using the position pointer	Press DISPLAY.

Listening to the radio

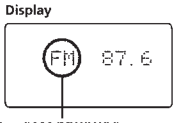


For hookup instructions, see pages 53 - 58.

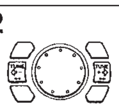
1



Press RADIO BAND until the band you want appears in the display (direct power-on).



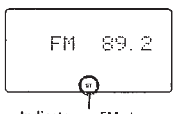
2



Hold down TUNE + or TUNE – until the frequency digits begin to change in the display.

The player automatically scans the radio frequencies and stops when it finds a clear station.

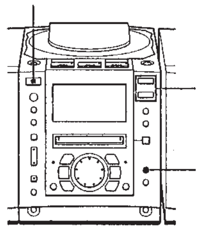
If you can't tune in a station, press TUNE + or TUNE – repeatedly to change the frequency step by step.



Tips

- If the FM broadcast is noisy, press MONO/ST (MODE on the remote) until "Mono" appears in the display and radio will play in monaural.
- Next time you want to listen to the radio, just press RADIO BAND. The player turns on automatically and starts playing the previous station.

Use these buttons for additional operations



To	Press
adjust the volume	VOL +, –
turn on/off the radio	POWER

To improve broadcast reception

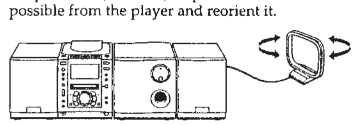
FM:

Connect the supplied FM lead antenna.

If the FM broadcast is still noisy, disconnect the FM lead antenna and connect the FM outdoor antenna (not supplied) (see page 58).

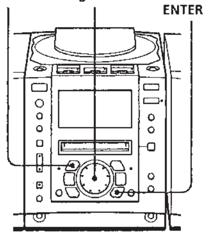
AM (MW/LW):

Keep the AM (MW/LW) loop antenna as far as possible from the player and reorient it.



If the broadcast is still noisy, connect the external antenna (page 58).

Setting the clock

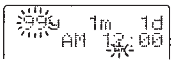


"- -y - -m - -d" and "- -:- -" indications appear in the display until you set the clock.

Once the clock is set, the recording date and time are stamped automatically (pages 7, 26 and 28).

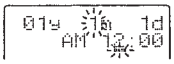
Tips
- The time display system of this player is the 12-hour system. (US, Canadian) or 24-hour system (AEP, UK).
- You can set the clock of this player any time, no matter whether power is on or off.

1 Press and hold CLOCK until the year digits flash.

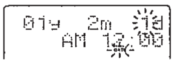


2 Set the date.

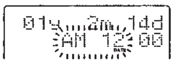
① Turn the jog dial to set the year and press YES•ENTER.



② Turn the jog dial to set the month and press YES•ENTER.



③ Turn the jog dial to set the day and press YES•ENTER.



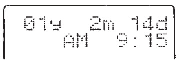
3 Set the time.

① Turn the jog dial to set the hour and press YES•ENTER.

② Turn the jog dial to set the minutes.

4 Press YES•ENTER.

The clock starts from 00 seconds.

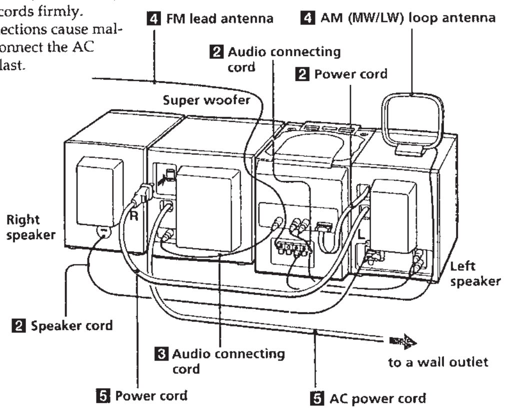


To display the time

Press CLOCK. To go back to the previous display, press CLOCK again. When the power is turned off, the time indication is displayed.

Hooking up the system

According to the illustrations, connect the cords firmly. Wrong connections cause malfunctions. Connect the AC power cord last.



Note
Be sure to turn off the power of the player before connecting/disconnecting the AC power cord.

1 Arranging the super woofer and speakers

Leave at least a small space between the player, super woofer, and speakers. If you do not do this, vibration from the super woofer may cause the sound to skip.

continued

SECTION 3
DISASSEMBLY

- This set can be disassembled in the order shown below.

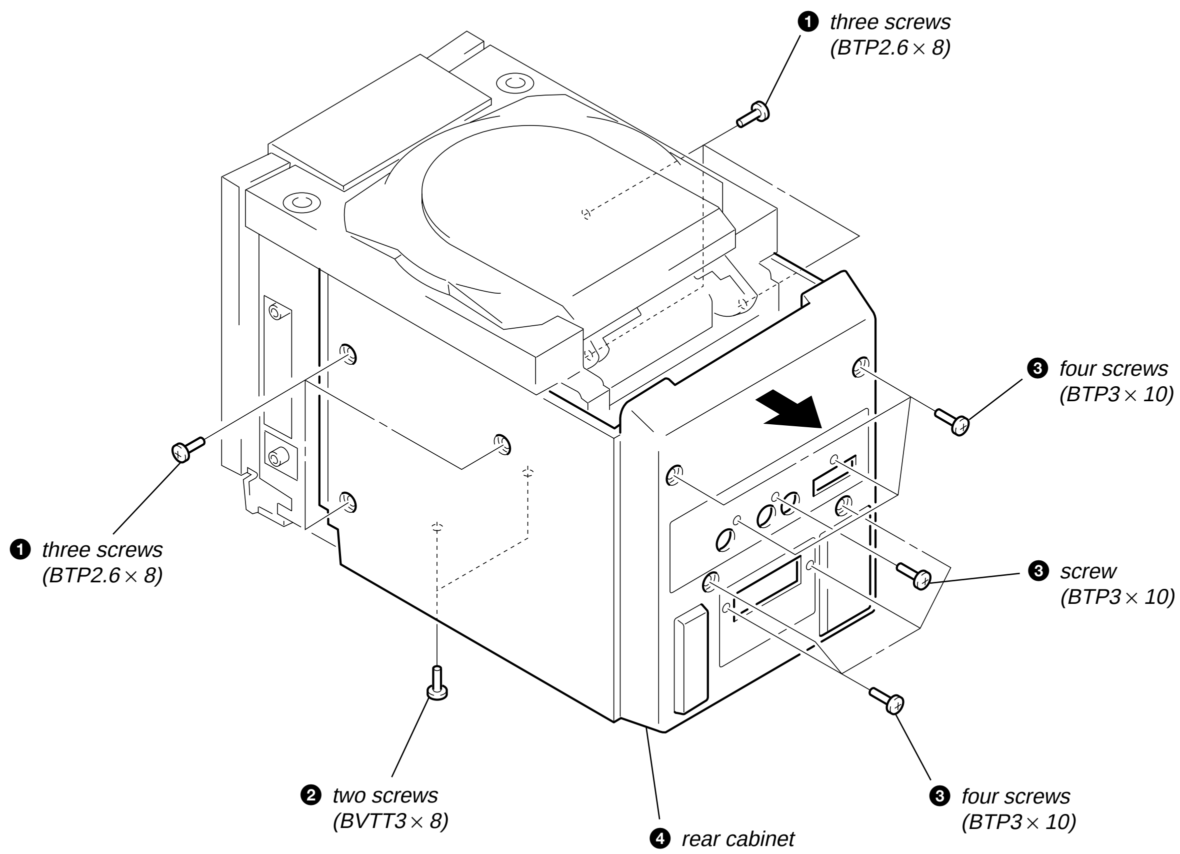
Set → Rear cabinet → Front cabinet block → Upper cabinet block → CD PICK-UP assy

Rear cabinet → Main board section → Main board

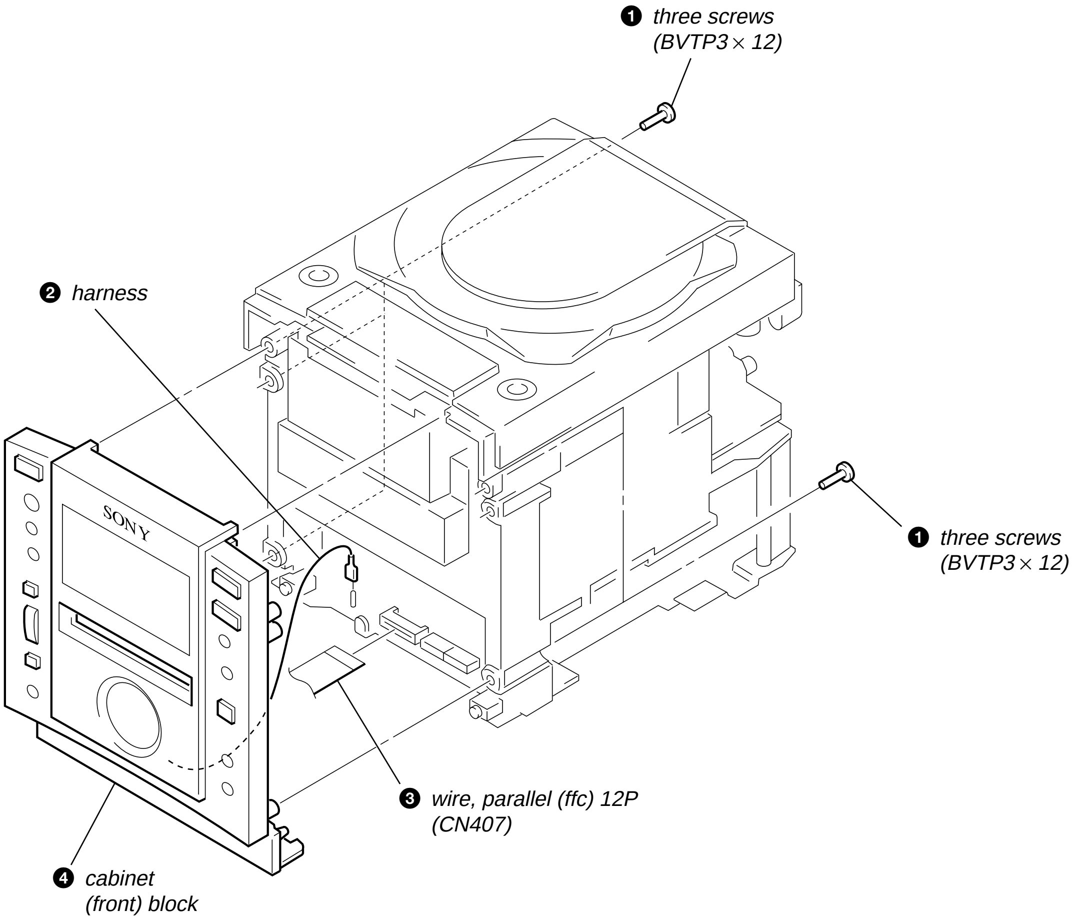
Main board section → TU block, MD block → MD mechanism deck → Slider (CAM) → Base unit (MBU-5A), BD board → SW board, loading motor (M103)

Note: Follow the disassembly procedure in the numerical order given.

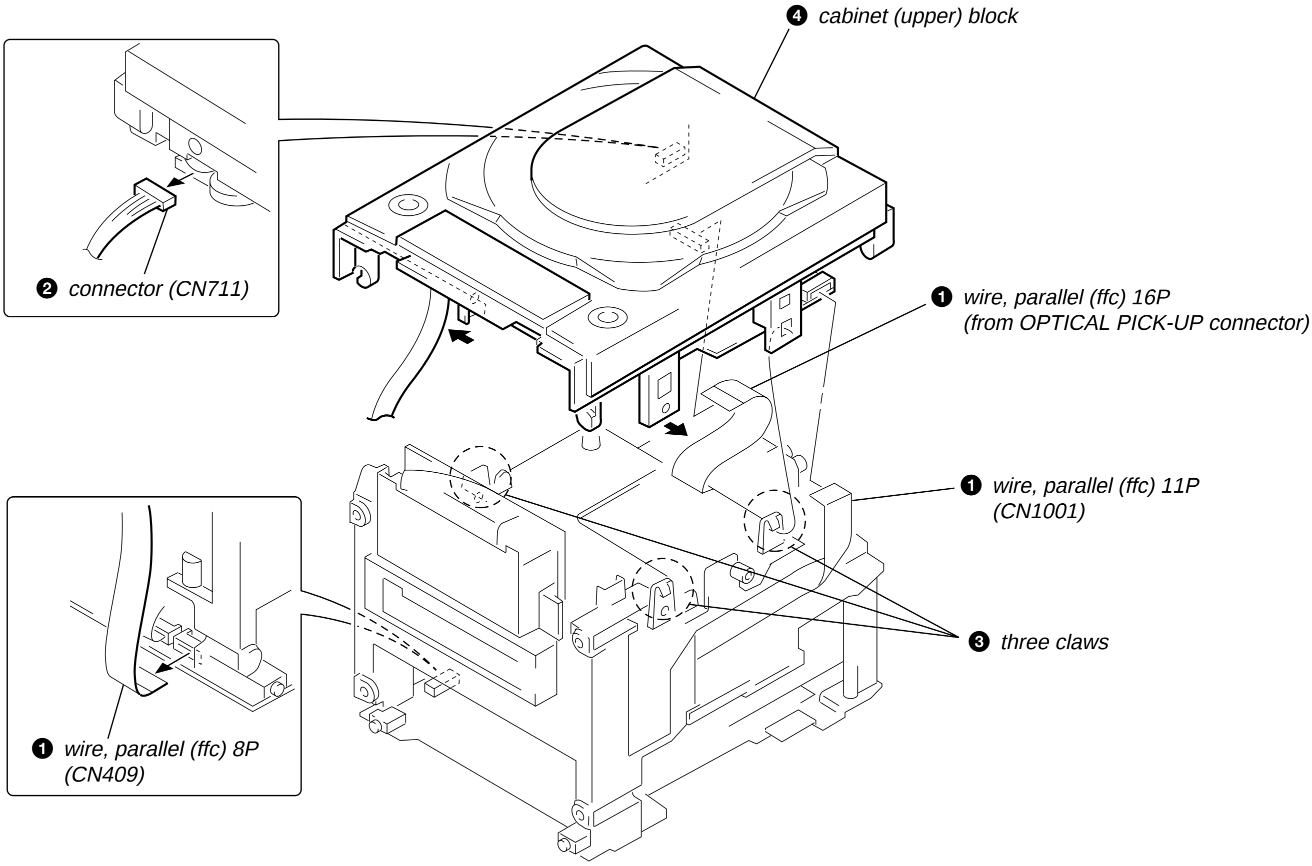
REAR CABINET



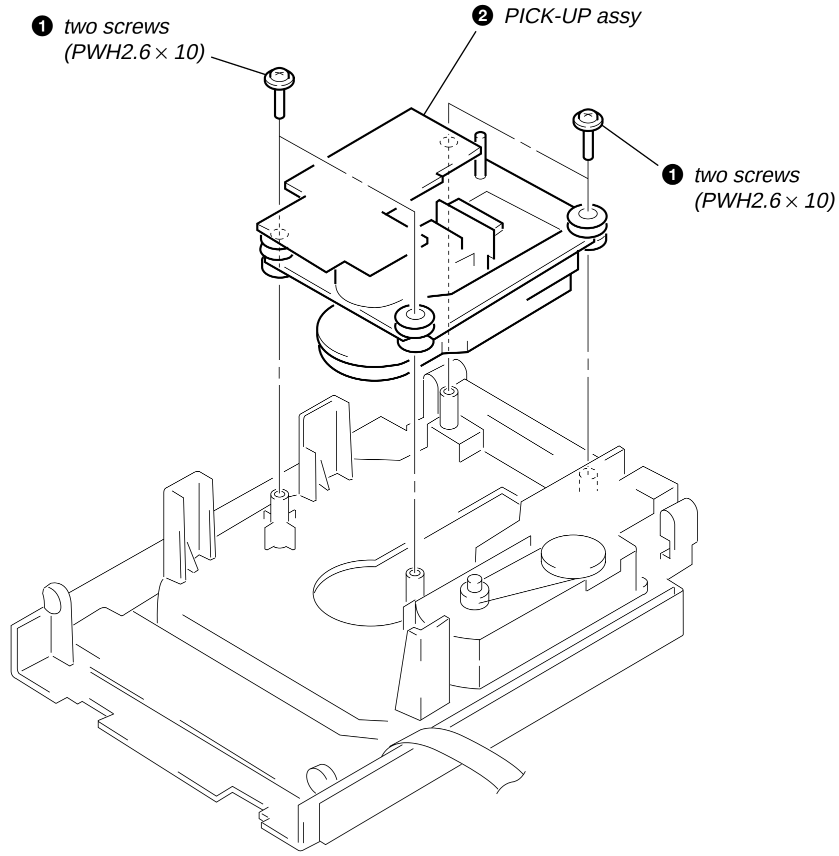
FRONT CABINET BLOCK



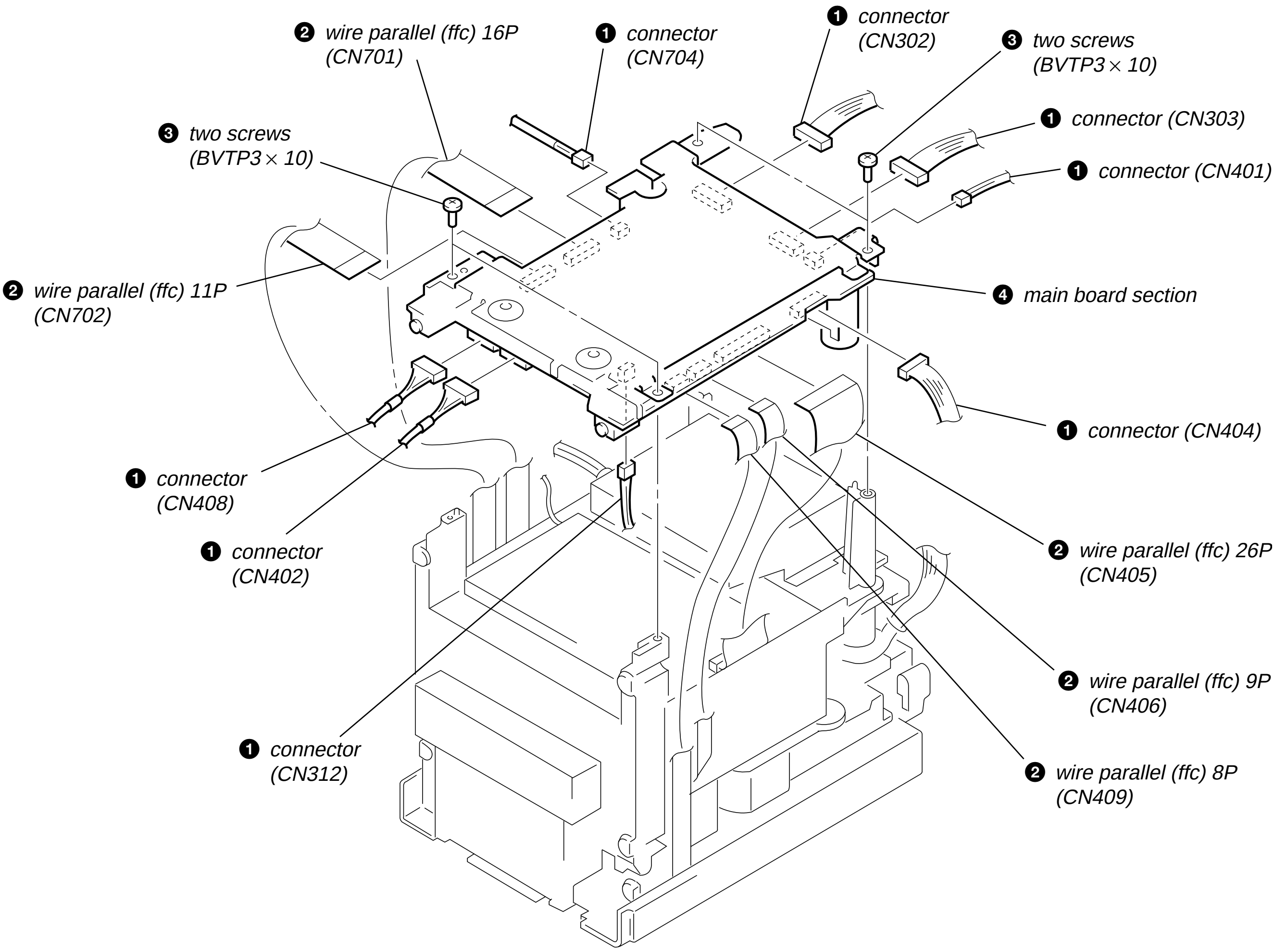
UPPER CABINET BLOCK



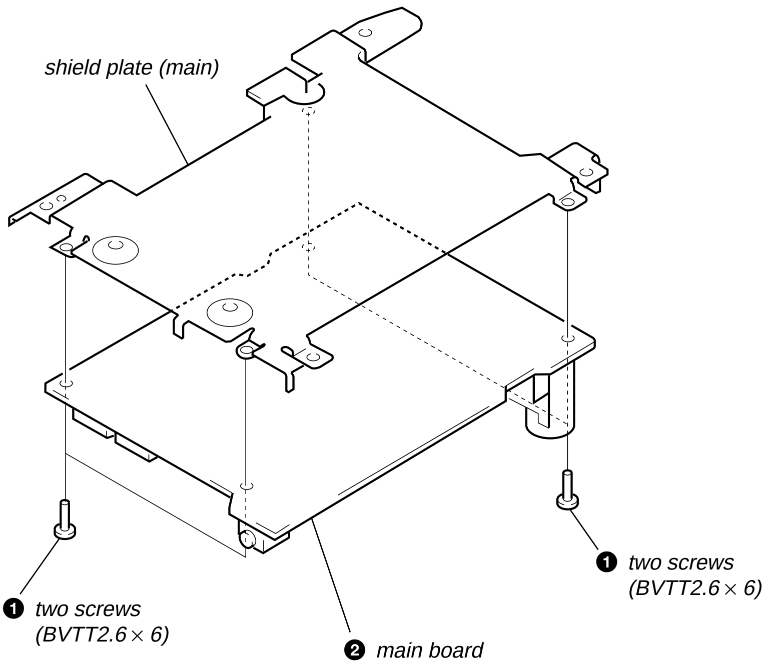
CD PICK-UP ASSY



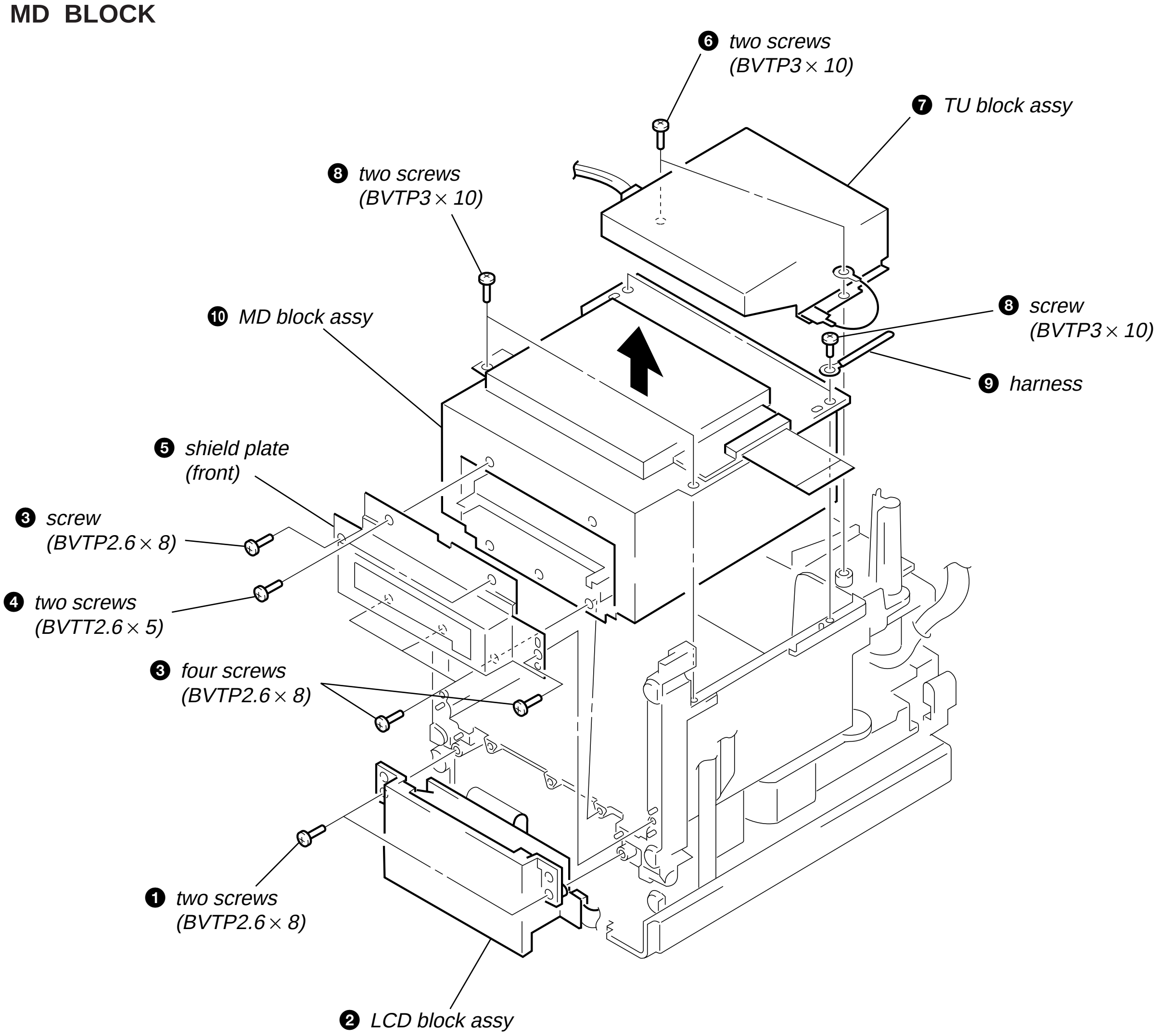
MAIN BOARD SECTION



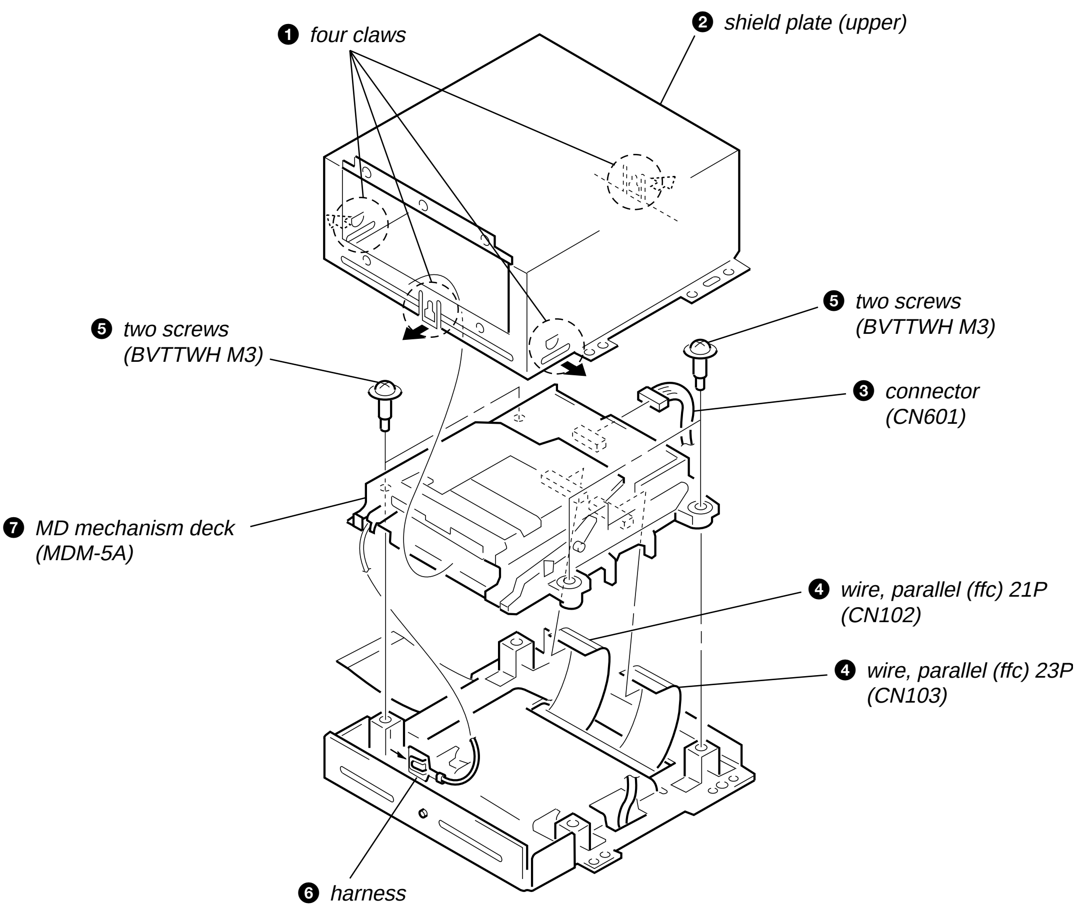
MAIN BOARD



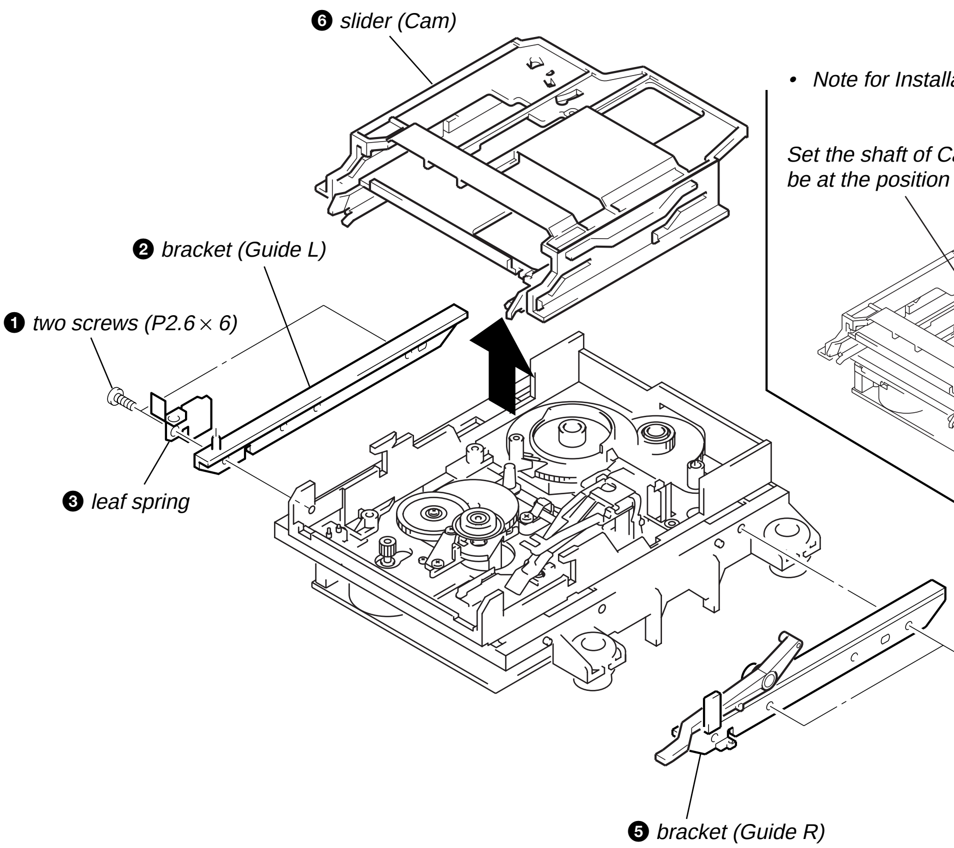
TU BLOCK, MD BLOCK



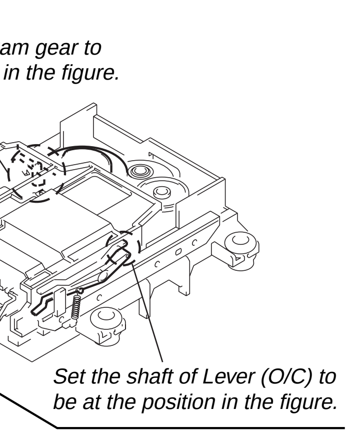
MD MECHANISM DECK



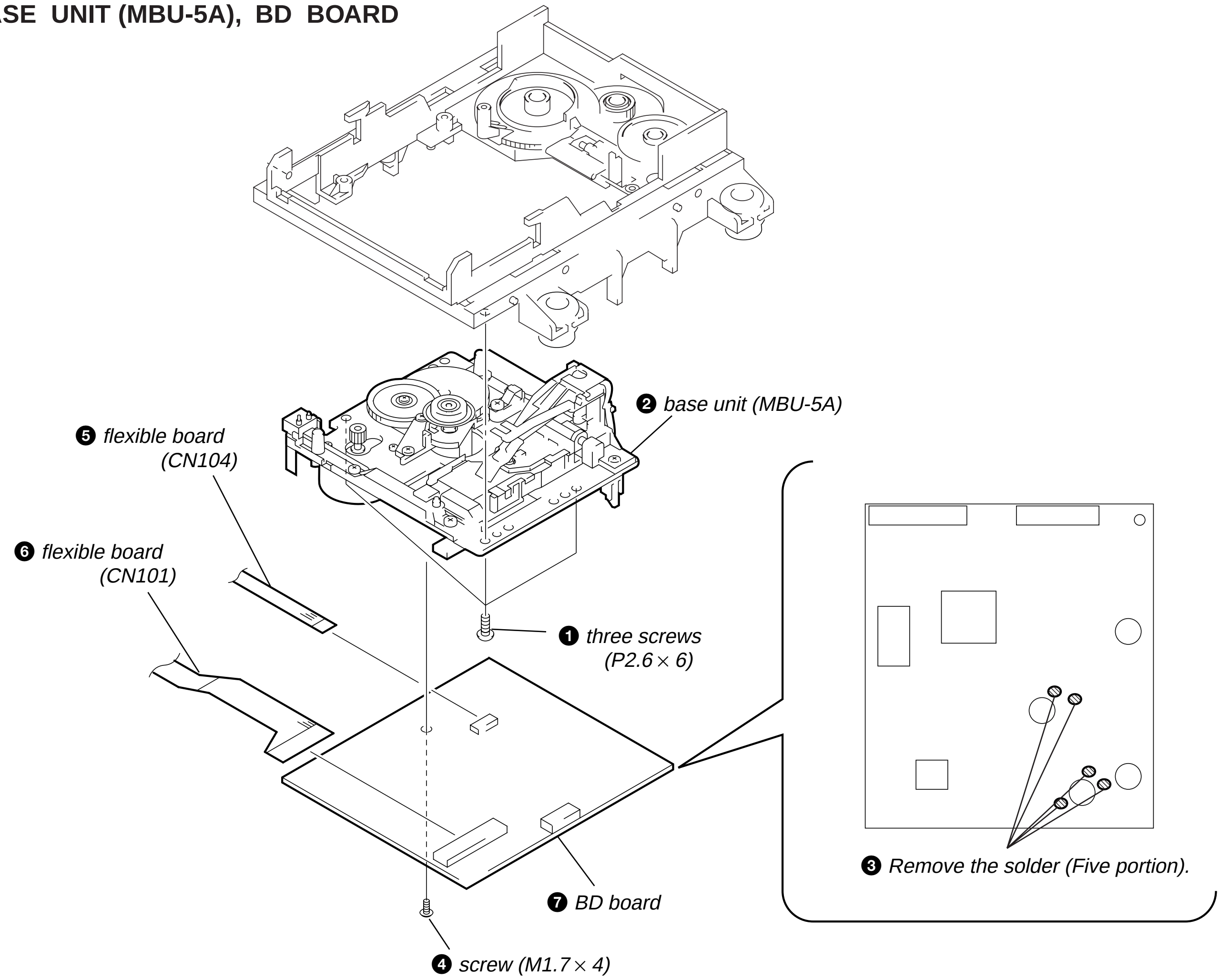
SLIDER (CAM)



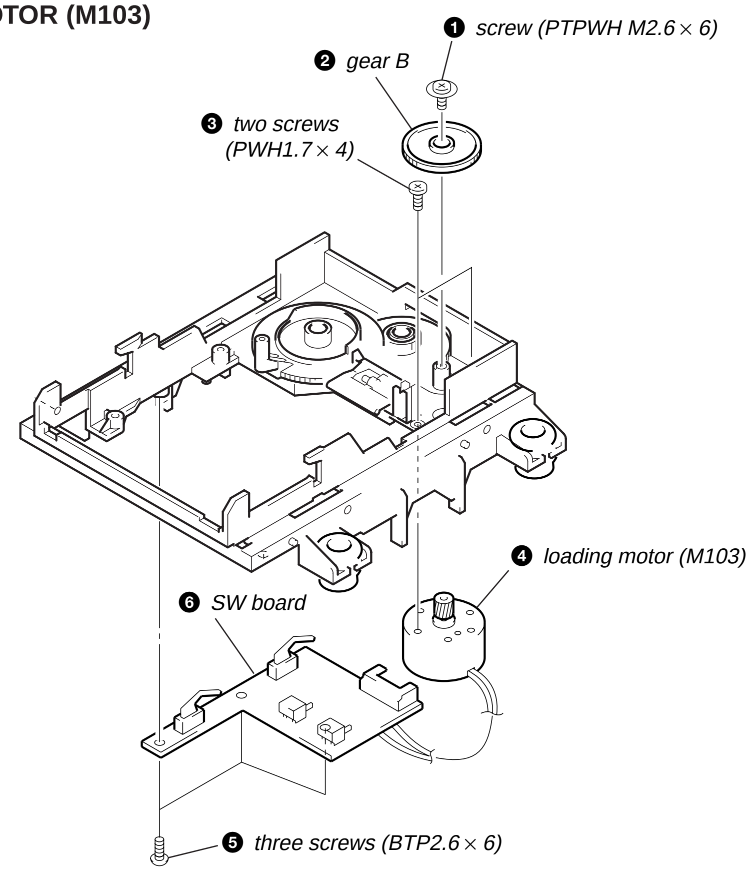
- Note for Installation of Slider A (Cam)



BASE UNIT (MBU-5A), BD BOARD



SW BOARD, LOADING MOTOR (M103)



SECTION 4
TEST MODE

Refer to "5. ELECTRICAL ADJUSTMENT" for the test mode of CD section.

MD SECTION

1. PRECAUTIONS FOR USE OF TEST MODE

- As loading related operations will be performed regardless of the test mode operations being performed, be sure to check that the disc is stopped before setting and removing it.
  Even if the [MD EJECT ⏏] button is pressed while the disc is rotating during continuous playback, continuous recording, etc., the disc will not stop rotating.
  Therefore, it will be ejected while rotating.
  Be sure to press the [MD EJECT ⏏] button after pressing the [NO, CANCEL] button and the rotation of disc is stopped.

1-1. Recording laser emission mode and operating buttons

- Continuous recording mode (CREC MODE)
- Laser power check mode (LDPWR CHECK)
- Laser power adjustment mode (LDPWR ADJUST)
- When pressing the [REC] button.

2. SETTING THE TEST MODE

1. Set to standby state.
2. While pressing the both [BASS/TREBLE] and [EDIT] buttons, press the button [▷II , MD] → [□](MD) → [▷II , MD] → [□](MD).
3. Release the both [BASS/TREBLE] and [EDIT] buttons to enter the MD test mode.

3. RELEASING THE TEST MODE

Press the [POWER] button to turn the power OFF, or press the [RESET] (bottom of the player unit) switch.

4. BASIC OPERATIONS OF THE TEST MODE

All operations are performed using the JOG dial, [YES, ENTER] button, and [NO, CANCEL] button.
The functions of these buttons are as follows.

Function name	Function
JOG dial	Changes parameters and modes
YES, ENTER button	Proceeds onto the next step. Finalizes input.
NO, CANCEL button	Returns to previous step. Stops operations.

5. SELECTING THE TEST MODE

There are 9 types of test modes as shown below. The mode can be switched by turning the JOG dial. After selecting the mode to be used, press the [YES, ENTER] button.

Display	Contents
TEMP ADJUST	Temperature compensation offset adjustment
LDPWR ADJUST	Laser power adjustment
LDPWR CHECK	Laser power check
EFBAL ADJUST	EF balance adjustment
FBIAS ADJUST	Focus bias adjustment
FBIAS CHECK	Focus bias check
CPLAY MODE	Continuous playback mode
CREC MODE	Continuous recording mode
EEP MODE	Non-volatile memory control

- For details of each adjustment mode, refer to “5. Electrical Adjustments”.
- If a different mode has been selected by mistake, press the [NO, CANCEL] button to release that mode.
- EEP MODE is not used for servicing and therefore is not described in detail. If this mode is sets accidentally, press the [NO, CANCEL] button to release the mode immediately. Be especially careful this mode will overwrite the non-volatile memory and reset it, and as a result, the unit will not operate normally.

5-1. Operating the Continuous Playback Mode

1. Entering the continuous playback mode
(1) Set the disc in the unit. (Whichever recordable discs or discs for playback only are available)
(2) Turn the JOG dial and display “CPLAY MODE”.
(3) Press the YES, ENTER button to change the display to “CPLAY MID”.
(4) When access completes, the display changes to “C1 = □□□□ AD = □□”.
Note: The numbers “□” displayed show you error rates and ADER.

2. Changing the parts to be played back
(1) Press the YES, ENTER button during continuous playback to change the display as below.

“CPLAY MID” → “CPLAY OUT” → “CPLAY IN” (→ back to “CPLAY MID”)

When pressed another time, the parts to be played back can be moved.
(2) When access completes, the display changes to “C1 = □□□□ AD = □□”.
Note: The numbers “□” displayed show you error rates and ADER.

3. Ending the continuous playback mode
(1) Press the NO, CANCEL button. The display will change to “CPLAY MODE”.
(2) Press the MD EJECT ⏏ button and take out the disc.
Note: The playback start addresses for IN, MID, and OUT are as follows.
IN : 40h cluster
MID : 300h cluster
OUT : 700h cluster

5-2. Operating the Continuous Recording Mode (Use only when performing self-recording/palyback check)

1. Entering the continuous recording mode
(1) Set a recordable disc in the unit.
(2) Turn the JOG dial and display “CREC MODE”.
(3) Press the YES, ENTER button to change the display to “CREC MID”.
(4) When access completes, the display changes to “CREC (□□□□)” and “REC” lights up.
Note: The numbers “□” displayed shows you the recording position addresses.

2. Changing the parts to be recorded
(1) When the YES, ENTER button is pressed during continuous recording, the display changes as below.

“CREC MID” → “CREC OUT” → “CREC IN” (→ back to “CREC MID”)

When pressed another time, the parts to be recorded can be changed. “REC” goes off.
(2) When access completes, the display changes to “CREC (□□□□)” and “REC” lights up.
Note: The numbers “□” displayed shows you the recording position addresses.

3. Ending the continuous recording mode
(1) Press the NO, CANCEL button. The display changes to “CREC MODE” and “REC” goes off.
(2) Press the MD EJECT ⏏ button and take out the disc.
Note 1: The recording start addresses for IN, MID, and OUT are as follows.
IN : 40h cluster
MID : 300h cluster
OUT : 700h cluster
Note 2: The NO, CANCEL button can be used to stop recording anytime.
Note 3: Do not perform continuous recording for long periods of time above 5 minutes.
Note 4: During continuous recording, be careful not to apply vibration.

5-3. Non-Volatile Memory Mode (EEP MODE)

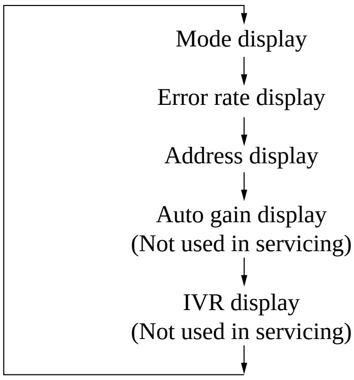
This mode reads and writes the contents of the non-volatile memory.
It is not used in servicing. If the unit entered this mode accidentally, press the NO, CANCEL button immediately to release it.

6. FUNCTIONS OF OTHER BUTTONS

Function	Contents
▷II, MD and EDIT	Sets continuous playback when pressed in the STOP state. When pressed during continuous playback, the tracking servo turns ON/OFF.
□ (MD) and EDIT	Stops continuous playback and continuous recording.
▶▶	The sled moves to the outer circumference only when this is pressed.
◀◀	The sled moves to the inner circumference only when this is pressed.
REC and EDIT	When pressed during continuous playback, REC ON/OFF.
SYNCHRO REC and EDIT	Switches between the pit and groove modes when pressed.
AUTO PRESET and EDIT	When pressed during continuous playback, switches the spindle servo mode (CLV-S ⟷ CLV-A).
DISPLAY	Switches the displayed contents each time the button is pressed
MD EJECT ⏏	Ejects the disc
POWER or RESET	Releases the test mode

7. TEST MODE DISPLAYS

Each time the [DISPLAY] button is pressed, the display changes in the following order.



1. Mode display
Displays “TEMP ADJUST”, “CPLAYMODE”, etc.

2. Error rate display
Displays the error rate in the following way.
C1 = □□□□ AD = □□
C1 = Indicates the C1 error.
AD = Indicates ADER.

3. Address display
The address is displayed as follows. (MO: recordable disc, CD: playback only disc)
Press the [SYNCHRO REC] and [EDIT] buttons simultaneously to switches between the groove display and pit display.
h = □□□□ s = □□□□ (MO pit and CD)
h = □□□□ a = □□□□ (MO groove)
h = Indicates the header address.
s = Indicates the SUBQ address.
a = Indicates the ADIP address.

Note: “–” is displayed when servo is not imposed.

4. Auto gain display (Not used in servicing)
The auto gain is displayed as follows.
AG F = □□ T = □□

5. IVR display (Not used in servicing)
The IVR is displayed as follows.
[□□][□□][□□]

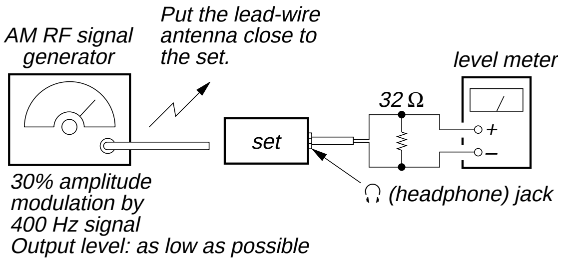
MEANINGS OF OTHER DISPLAYS

Display	Contents	
	When Lit	When Off
SHUF	During continuous playback (CLV: ON)	STOP (CLV: OFF)
PGM	Tracking servo OFF	Tracking servo ON
[REC]	Recording mode ON	Recording mode OFF
TOC EDIT	ABCD adjustment completed	
DIGITAL	Foucs and tracking auto gain OK	Blink: Focus auto gain OK, Tracking auto gain NG
TRACK	Pit	Groove
MD disc mark	High reflection	Low reflection
DATE	CLV-S	CLV-A
◴	CLV LOCK	CLV UNLOCK

SECTION 5
ELECTRICAL ADJUSTMENTS

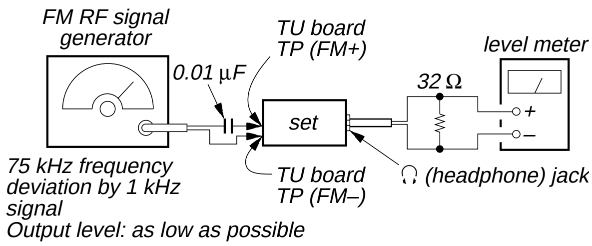
TUNER SECTION 0 dB=1 μV

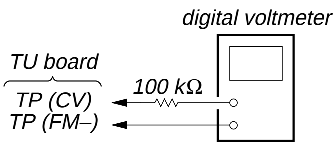
[AM (MW/LW)]
Setting:
Function : RADIO
BAND switch: AM (MW/LW)



[FM] (US, Canadian)
* The adjustment is not necessary for FM because that AEP, UK models use FM tuner unit (TU1).

Setting:
Function : RADIO
BAND switch : FM
MONO/ST switch: stereo





• Repeat the procedures in each adjustment several times, and the VT voltage and tracking adjustments should be finally done by the trimmer capacitors.

AM IF ADJUSTMENT	
Adjust for a maximum reading on level meter	
T1	450 kHz

AM VT VOLTAGE CONFIRMATION (US, Canadian)		
	Frequency Display	Reading on Digital Voltmeter
Confirmation	530 kHz	$0.7^{+0.8}_{-0.3}$ V
Confirmation	1,710 kHz	5 ± 1 V

AM TRACKING ADJUSTMENT (US, Canadian)	
Adjust for a maximum reading on level meter	
L4	620 kHz
CT2	1,400 kHz

MW VT VOLTAGE ADJUSTMENT (AEP, UK)		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L4	531 kHz	0.8 ± 0.1 V
CT4	1,611 kHz	5.5 ± 0.2 V

LW VT VOLTAGE ADJUSTMENT (AEP, UK)		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
CT5	279 kHz	$5.5^{+0.3}_{-0.4}$ V
Confirmation	153 kHz	$0.5^{+0.4}_{-0.3}$ V

MW TRACKING ADJUSTMENT (AEP, UK)	
Adjust for a maximum reading on level meter	
L3	621 kHz
CT2	1,404 kHz

LW TRACKING ADJUSTMENT (AEP, UK)	
Adjust for a maximum reading on level meter	
L5	162 kHz
CT3	261 kHz

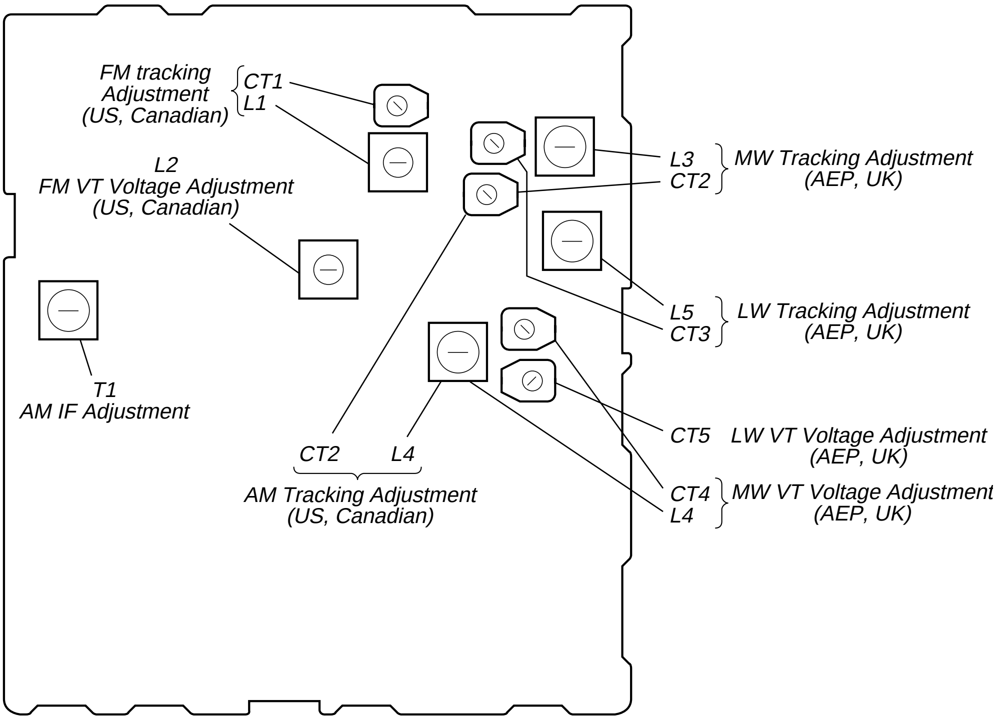
FM VT VOLTAGE ADJUSTMENT (US, Canadian)		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L2	108 MHz	4.2 ± 0.2 V
Confirmation	87.5 MHz	$1.9^{+0.2}_{-0.4}$ V

FM TRACKING ADJUSTMENT (US, Canadian)	
Adjust for a maximum reading on level meter	
L1	87.5 MHz
CT1	108 MHz

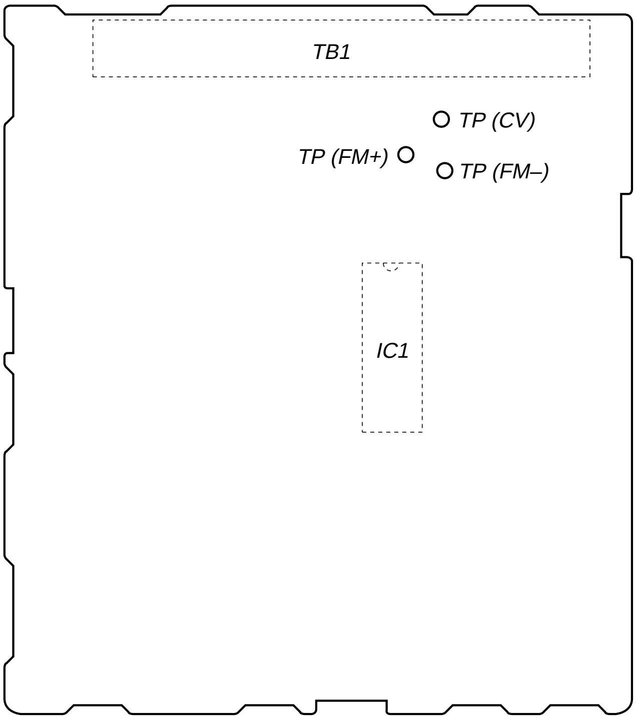
Adjustment Location: TU board (See page 20)

Adjustment Location:

– TU BOARD (Component Side) –



– TU BOARD (Conductor Side) –

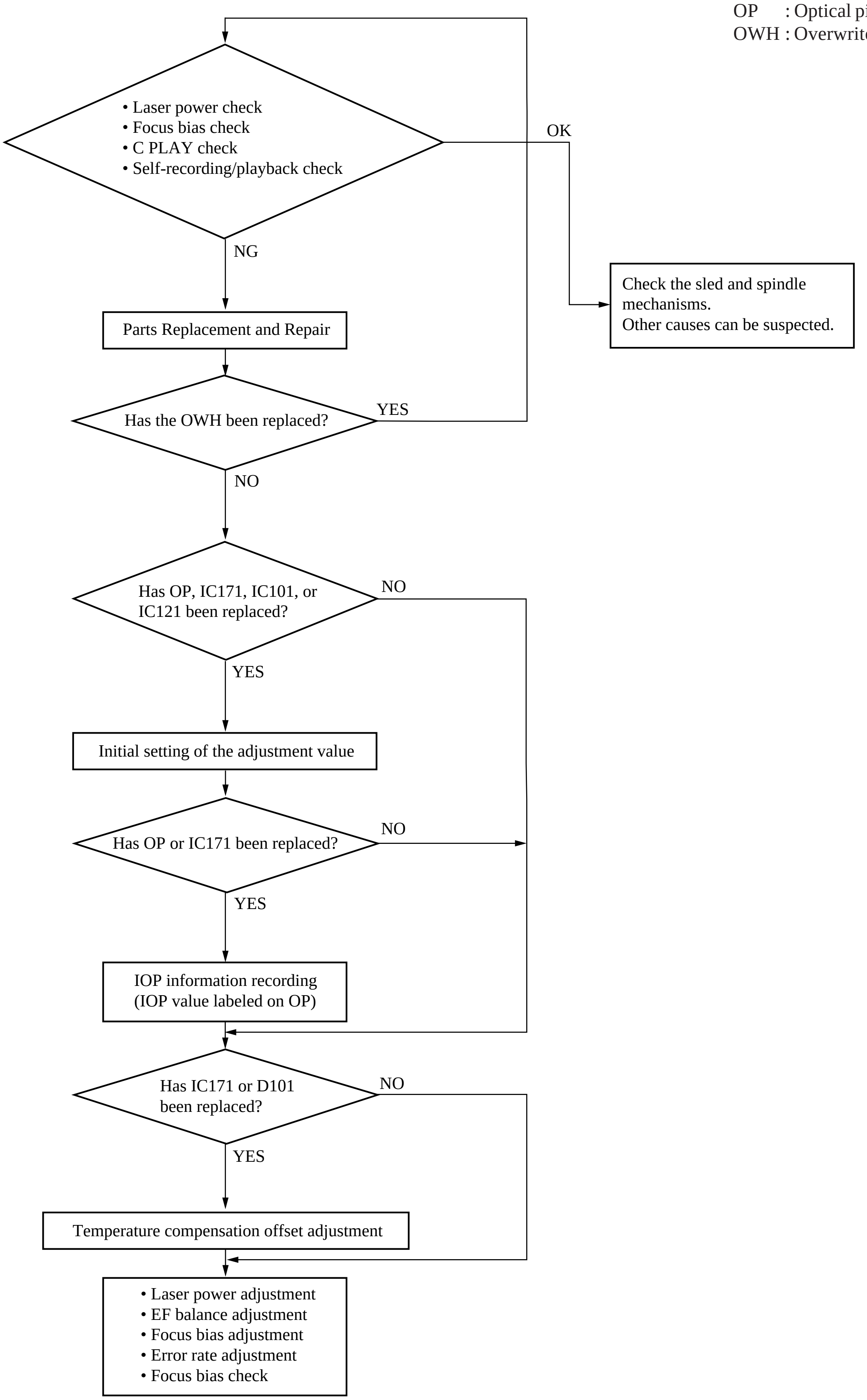


MD SECTION

1. PARTS REPLACEMENT AND ADJUSTMENT

- Check and adjust the mechanism deck as follows.
  The procedure changes according to the part replaced.

- Abbreviation
  OP : Optical pick-up
  OWH : Overwrite head

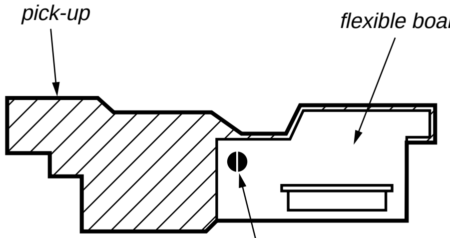


2. PRECAUTIONS FOR CHECKING LASER DIODE EMISSION

To check the emission of the laser diode during adjustments, never view directly from the top as this may lose your eye-sight.

3. PRECAUTIONS FOR USE OF OPTICAL PICK-UP (KMS-260A)

As the laser diode in the optical pick-up is easily damaged by static electricity, solder the laser tap of the flexible board when using it. Before disconnecting the connector, desolder first. Before connecting the connector, be careful not to remove the solder. Also take adequate measures to prevent damage by static electricity. Handle the flexible board with care as it breaks easily.



Optical pick-up flexible board

4. PRECAUTIONS FOR ADJUSTMENTS

1. When replacing the following parts, perform the adjustments and checks with O in the order shown in the following table.

	Optical Pick-up	BD Board			
		IC171	D101	IC101, IC121	IC192
1. Recording of IOP information (Value on the optical pick-up label)	O	O	×	×	×
2. Temperature compensation offset adjustment	×	O	O	×	×
3. Laser power adjustment	O	O	×	O	O
4. EF balance adjustment	O	O	×	O	×
5. Focus bias adjustment	O	O	×	O	×
6. Error rate check	O	O	×	O	×

2. Set the test mode when performing adjustments.
   After completing the adjustments, release the test mode.
3. Perform the adjustments to be needed in the order shown.
4. Use the following tools and measuring devices.
   - Check Disc (MD) TDYS-1
     (Part No. 4-963-646-01)
   - Test Disc (MDW-74/AU-1) (Part No. 8-892-341-41)
   - Laser power meter LPM-8001 (Part No. J-2501-046-A)
     or MD Laser power meter 8010S (Part No. J-2501-145-A)
   - Oscilloscope (Measure after performing CAL of prove)
   - Digital voltmeter
   - Thermometer
   - Jig for checking BD board waveform
     (Part No. : J-2501-149-A)
5. When observing several signals on the oscilloscope, etc., make sure that VC and ground do not connect inside the oscilloscope.
   (VC and ground will become short-circuited)
6. Using the above jig enables the waveform to be checked without the need to solder.
   (Refer to Servicing Notes on page 4)
7. As the disc used will affect the adjustment results, make sure that no dusts nor fingerprints are attached to it.

Laser power meter

When performing laser power checks and adjustment (electrical adjustment), use of the new MD laser power meter 8010S (Part No. J-2501-145-A) instead of the conventional laser power meter is convenient.
It sharply reduces the time and trouble to set the laser power meter sensor onto the objective lens of optical pick-up.

5. CREATING CONTINUOUSLY-RECORDED DISC

* This disc is used in focus bias adjustment and error rate check. The following describes how to create a continuous recording disc.

1. Insert a disc (blank disc) commercially available.
2. Turn the JOG dial and display “CREC MODE”.
3. Press the [YES, ENTER] button again to display “CREC MID”. Display “CREC (0300)” and start to recording.
4. Complete recording within 5 minutes.
5. Press the [NO, CANCEL] button and stop recording .
6. Press the [MD EJECT ⏏] button and remove the disc.

The above has been how to create a continuous recorded data for the focus bias adjustment/check and MO error rate check.

Note :

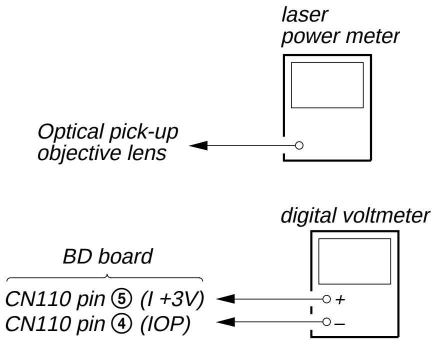
- Be careful not to apply vibration during continuous recording.

6. CHECK PRIOR TO REPAIRS

These checks are performed before replacing parts according to "approximate specifications" to determine the faulty locations. For details, refer to "Checks Prior to Parts Replacement and Adjustments" (See page 5).

6-1. Laser Power Check

Connection :



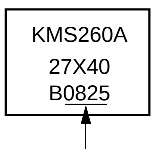
Checking Procedure:

1. Set the laser power meter on the objective lens of the optical pick-up. (When it cannot be set properly, press the [◀◀] button or [▶▶] button to move the optical pick-up)
   Connect the digital voltmeter to CN110 pin ⑤ (I+3V) and CN110 pin ④ (IOP) on the BD board.
2. Then, turn the JOG dial to display "LDPWR CHECK".
3. Press the [YES, ENTER] button once to display "LD 0.9 mW $ □□". Check that the reading of the laser power meter become 0.84 to 0.92 mW.
4. Press the [YES, ENTER] button once more to display "LD 7.0 mW $ □□". Check that the reading the laser power meter and digital voltmeter satisfy the specified value.

Specified Value:

Laser power meter reading : 7.0 ± 0.2 mW
Digital voltmeter reading : Value on the optical pick-up label ±10%

(Optical pick-up label)



IOP=82.5 mA in this case
IOP (mA) = Digital voltmeter reading (mV)/1 (Ω)

5. Press the [NO, CANCEL] button to display "LDPWR CHECK" and stop the laser emission.
   (The [NO, CANCEL] button is effective at all times to stop the laser emission)

Note 1: After step 4, each time the [YES, ENTER] button is pressed, the display will be switched "LD 0.7 mW $ □□", "LD 6.2 mW $ □□", and "LD WP ホセイ $ □□". Nothing needs to be performed here.

6-2. Focus Bias Check

Change the focus bias and check the focus tolerance amount.

Checking Procedure :

1. Load the test disk (MDW-74/AU-1).
2. Turn the JOG dial to display "CPLAY MODE".
3. Press the [YES, ENTER] button twice to display "CPLAY MID".
4. Press the [NO, CANCEL] button when "C1 = □□□□ AD = □□" is displayed.
5. Turn the JOG dial to display "FBIAS CHECK".
6. Press the [YES, ENTER] button to display "□□□□/□□ c = □□".
   The first four digits indicate the C1 error rate, the two digits after [/] indicate ADER, and the 2 digits after [c =] indicate the focus bias value.
   Check that the C1 error is below 50 and ADER is below 2.
7. Press the [YES, ENTER] button to display "□□□□/□□ b = □□".
   Check that the C1 error is about 200 and ADER is below 2.
8. Press the [YES, ENTER] button to display "□□□□/□□ a = □□".
   Check that the C1 error is about 200 and ADER is below 2.
9. Press the [NO, CANCEL] button, then press the [MD EJECT ⏏] button and take out the test disc.

6-3. C PLAY Check

MO Error Rate Check

Checking Procedure :

1. Load the test disk (MDW-74/AU-1).
2. Turn the JOG dial to display "CPLAY MODE".
3. Press the [YES, ENTER] button to display "CPLAY MID".
4. The display changes to "C1 = □□□□ AD = □□".
5. If the C1 error rate is below 80, check that ADER is below 2.
6. Press the [NO, CANCEL] button to stop playback, then press the [MD EJECT ⏏] button and take out the test disc.

CD Error Rate Check

Checking Procedure :

1. Load the check disc (MD) TDYS-1.
2. Turn the JOG dial to display "CPLAY MODE".
3. Press the [YES, ENTER] button twice to display "CPLAY MID".
4. The display changes to "C1 = □□□□ AD = □□".
5. Check that the C1 error rate is below 50.
6. Press the [NO, CANCEL] button to stop playback, then press the [MD EJECT ⏏] button and take out the check disc.

6-4. Self-Recording/playback Check

Prepare a continuous recording disc using the unit to be repaired and check the error rate.

Checking Procedure :

1. Load a recordable disc (blank disc).
2. Turn the JOG dial to display "CREC MODE".
3. Press the [YES, ENTER] button to display "CREC MID".
4. When recording starts, lights up "[REC]" and display "CREC @@@@" (@@@@ is the address).
5. About 1 minute later, press the [NO, CANCEL] button to stop continuous recording.
6. Turn the JOG dial to display "CPLAY MODE".
7. Press the [YES, ENTER] button to display "CPLAY MID".
8. "C1 = □□□□ AD = □□" will be displayed.
9. Check that the C1 error becomes below 80 and the ADER below 2.
10. Press the [NO, CANCEL] button to stop playback, then press the [MD EJECT ⏏] button and take out the disc.

7. TEMPERATURE COMPENSATION OFFSET ADJUSTMENT

Save the temperature data at that time in the non-volatile memory as 25 ˚C reference data.

Note :

1. Usually, do not perform this adjustment.
2. Perform this adjustment in an ambient temperature of 22 ˚C to 28 ˚C. Perform it immediately after the power is turned on when the internal temperature of the unit is the same as the ambient temperature of 22 ˚C to 28 ˚C.
3. When D101 has been replaced, perform this adjustment after the temperature of this part has become the ambient temperature.

Adjusting Procedure :

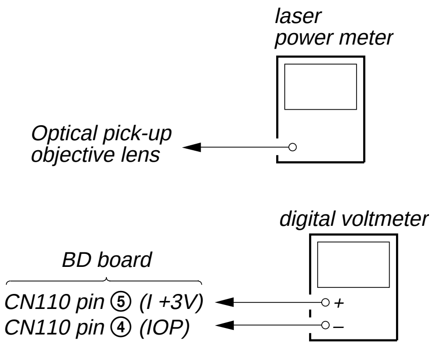
1. Turn the JOG dial to display “TEMP ADJUST”.
2. Press the YES, ENTER button to select the “TEMP ADJUST” mode.
3. “TEMP = □□” and the current temperature data will be displayed.
4. To save the data, press the YES, ENTER button.
   When not saving the data, press the NO, CANCEL button.
5. When the YES, ENTER button is pressed, “TEMP = □□ SAVE” will be displayed and turned back to “TEMP ADJUST” display then. When the NO, CANCEL button is pressed, “TEMP ADJUST” will be displayed immediately.

Specified Value :

The “TEMP = □□” should be within “E0 - EF”, “F0 - FF”, “00 - 0F”, “10 - 1F” and “20 - 2F”.

8. LASER POWER ADJUSTMENT

Connection :



Adjusting Procedure :

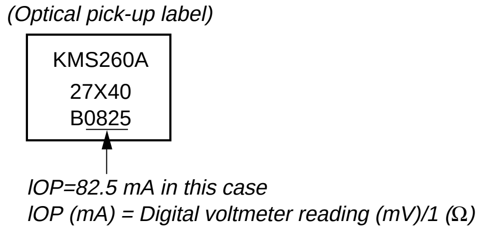
1. Set the laser power meter on the objective lens of the optical pick-up. (When it cannot be set properly, press the ◀◀ button or ▶▶ button to move the optical pick-up)
   Connect the digital voltmeter to CN110 pin ⑤ (I+3V) and CN110 pin ④ (IOP) on the BD board.
2. Turn the JOG dial to display “LDPWR ADJUST”.
   (Laser power : For adjustment)
3. Press the YES, ENTER button once to display “LD 0.9 mW $ □□”.
4. Turn the JOG dial so that the reading of the laser power meter becomes 0.85 to 0.91 mW. Press the YES, ENTER button after setting the range knob of the laser power meter, and save the adjustment results. (“LD SAVE $ □□” will be displayed for a moment)
5. Then “LD 7.0 mW $ □□” will be displayed.
6. Turn the JOG dial so that the reading of the laser power meter becomes 6.9 to 7.1 mW, press the YES, ENTER button to save it.

Note: Do not perform the emission with 7.0 mW more than 15 seconds continuously.

7. Then, turn the JOG dial to display “LDPWR CHECK”.
8. Press the YES, ENTER button once to display “LD 0.9 mW $ □□”. Check that the reading of the laser power meter become 0.85 to 0.91 mW.
9. Press the YES, ENTER button once more to display “LD 7.0 mW $ □□”. Check that the reading the laser power meter and digital voltmeter satisfy the specified value.
   Note down the digital voltmeter reading value.

Specified Value:

Laser power meter reading: 7.0 ± 0.2 mW
Digital voltmeter reading : Value on the optical pick-up label ±10%



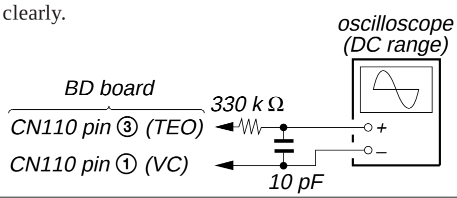
10. Press the NO, CANCEL button to display “LDPWR CHECK” and stop the laser emission.
    (The NO, CANCEL button is effective at all times to stop the laser emission)

Note 1: After step 9, each time the YES, ENTER button is pressed, the display will be switched “LD 0.7 mW $ □□”, “LD 6.2 mW $ □□”, and “LD WP ホセイ $ □□”. Nothing needs to be performed here.

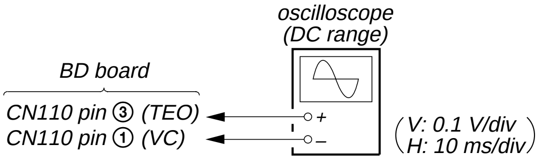
9. EF BALANCE ADJUSTMENT

Note 1: Data will be erased during MO reading if a recorded disc is used in this adjustment.

Note 2: If the traverse waveform is not clear, connect the oscilloscope as shown in the following figure so that it can be seen more clearly.



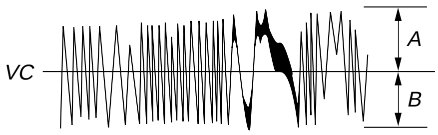
Connection :



Adjusting Procedure :

1. Connect an oscilloscope to CN110 pin ③ (TEO) and CN110 pin ① (VC) on the BD board.
2. Load a disc (any available on the market). (Refer to Note 1)
3. Press the ▶▶ button to move the optical pick-up outside the pit.
4. Turn the JOG dial to display “EFBAL ADJUST”.
5. Press the YES, ENTER button to display “EFB = □□ MO-R”.
   (Laser power READ power/Focus servo ON/tracking servo OFF/spindle (S) servo ON)
6. Turn the JOG dial so that the waveform of the oscilloscope becomes the specified value.
   (When the JOG dial is turned, the □□ of “EFB= □□” changes and the waveform changes) In this adjustment, waveform varies at intervals of approx. 2%. Adjust the waveform so that the specified value is satisfied as much as possible.
   (Read power traverse adjustment)

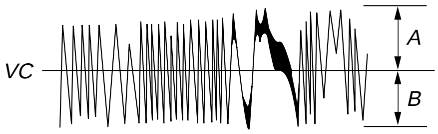
Traverse Waveform



Specification A = B

7. Press the YES, ENTER button and save the result of adjustment to the non-volatile memory. (“EFB = □□ SAVE” will be displayed for a moment. Then “EFB = □□ MO-W” will be displayed)
8. Turn the JOG dial so that the waveform of the oscilloscope becomes the specified value.
   (When the JOG dial is turned, the □□ of “EFB- □□” changes and the waveform changes) In this adjustment, waveform varies at intervals of approx. 2%. Adjust the waveform so that the specified value is satisfied as much as possible.
   (Write power traverse adjustment)

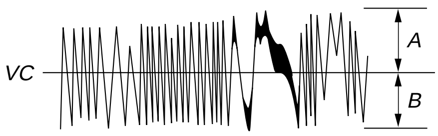
Traverse Waveform



Specification A = B

9. Press the YES, ENTER button, and save the adjustment results in the non-volatile memory. (“EFB = □□ SAVE” will be displayed for a moment)
10. “EFB = □□ MO-P” will be displayed.
    The optical pick-up moves to the pit area automatically and servo is imposed.
11. Turn the JOG dial until the waveform of the oscilloscope moves closer to the specified value.
    In this adjustment, waveform varies at intervals of approx. 2%. Adjust the waveform so that the specified value is satisfied as much as possible.

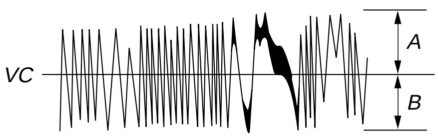
Traverse Waveform



Specification A = B

12. Press the YES, ENTER button, and save the adjustment results in the non-volatile memory. (“EFB = □□ SAVE” will be displayed for a moment)
    Next “EFBAL ADJUST” is displayed. The disc stops rotating automatically.
13. Press the MD EJECT ⏏ button and take out the disc.
14. Load the check disc (MD) TDYS-1.
15. Press the YES, ENTER button to display “EFB = □□ CD”. Servo is imposed automatically.
16. Turn the JOG dial so that the waveform of the oscilloscope moves closer to the specified value.
    In this adjustment, waveform varies at intervals of approx. 2%. Adjust the waveform so that the specified value is satisfied as much as possible.

Traverse Waveform



Specification A = B

17. Press the YES, ENTER button, display “EFB = □□ SAVE” for a moment and save the adjustment results in the non-volatile memory.
    Next “EFBAL ADJUST” will be displayed.
18. Press the MD EJECT ⏏ button and take out the disc.

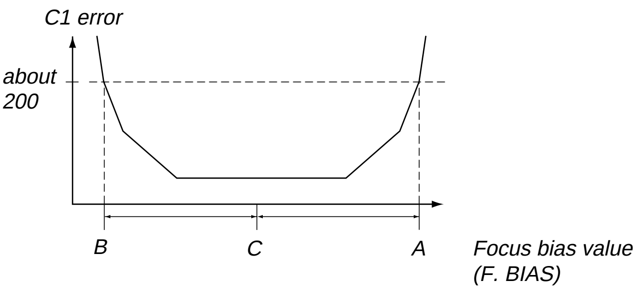
10. FOCUS BIAS ADJUSTMENT

Adjusting Procedure :

1. Load the continuously-recorded disc. (Refer to “5. CREATING CONTINUOUSLY-RECORDED DISC”)
2. Turn the JOG dial to display “CPLAY MODE”.
3. Press the YES, ENTER button to display “CPLAY MID”.
4. Press the NO, CANCEL button when “C1 = □□□□ AD = □□” is displayed.
5. Turn the JOG dial to display “FBIAS ADJUST”.
6. Press the YES, ENTER button to display “□□□□/□□ a = □□”. The first four digits indicate the C1 error rate, the two digits after [/] indicate ADER, and the 2 digits after [a =] indicate the focus bias value.
7. Turn the JOG dial clockwise and find the focus bias value at which the C1 error rate becomes about 200 (Refer to Note 2).
8. Press the YES, ENTER button to display “□□□□/□□ b = □□”.
9. Turn the JOG dial counterclockwise and find the focus bias value at which the C1 error rate becomes about 200.
10. Press the YES, ENTER button to display “□□□□/□□ c = □□”.
11. Check that the C1 error rate is below 50 and ADER is 00. Then press the YES, ENTER button.
12. If the “(□□)” in “□□ - □□ - □□ (□□)” is above 20, press the YES, ENTER button.
    If below 20, press the NO, CANCEL button and repeat the adjustment from step 2.
13. Press the MD EJECT ⏏ button and take out the disc.

Note 1: The relation between the C1 error and focus bias is as shown in the following figure. Find points A and B in the following figure using the above adjustment. The focal point position C is automatically calculated from points A and B.

Note 2: As the C1 error rate changes, perform the adjustment using the average vale.



11. ERROR RATE CHECK

11-1. CD Error Rate Check

Checking Procedure :

1. Load the check disc (MD) TDYS-1.
2. Turn the JOG dial and display “CPLAY MODE”.
3. Press the YES, ENTER button twice and display “CPLAY MID”.
4. The display changes to “C1 = □□□□ AD = □□”.
5. Check that the C1 error rate is below 20.
6. Press the NO, CANCEL button to stop playback, then press the MD EJECT ⏏ button and take out the check disc.

11-2. MO Error Rate Check

Checking Procedure :

1. Load the continuously-recorded disc. (Refer to “5. CREATING CONTINUOUSLY-RECORDED DISC”)
2. Turn the JOG dial to display “CPLAY MODE”.
3. Press the YES, ENTER button to display “CPLAY MID”.
4. The display changes to “C1 = □□□□ AD = □□”.
5. If the C1 error rate is below 50, check that ADER is 00.
6. Press the NO, CANCEL button to stop playback, then press the MD EJECT ⏏ button and take out the test disc.

12. FOCUS BIAS CHECK

Change the focus bias and check the focus tolerance amount.

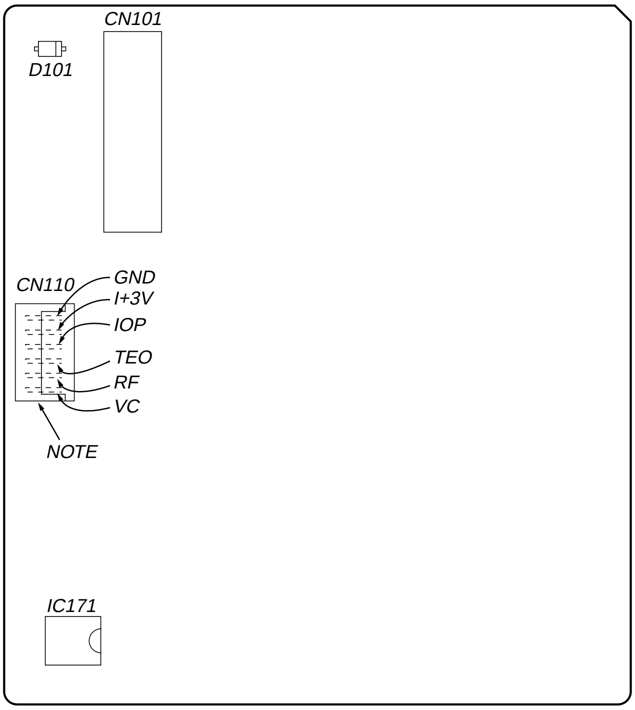
Checking Procedure :

1. Load the continuously-recorded disc. (Refer to “5. CREATING CONTINUOUSLY-RECORDED DISC”)
2. Turn the JOG dial to display “CPLAY MODE”.
3. Press the YES, ENTER button twice to display “CPLAY MID”.
4. Press the NO, CANCEL button when “C1 = □□□□ AD = □□” is displayed.
5. Turn the JOG dial to display “FBIAS CHECK”.
6. Press the YES, ENTER button to display “□□□□/□□ c = □□”. The first four digits indicate the C1 error rate, the two digits after [/] indicate ADER, and the 2 digits after [c =] indicate the focus bias value.
   Check that the C1 error is below 50 and ADER is below 2.
7. Press the YES, ENTER button and display “□□□□/□□ b = □□”.
   Check that the C1 error is about 200 and ADER is below 2.
8. Press the YES, ENTER button and display “□□□□/□□ a = □□”.
   Check that the C1 error is about 200 and ADER is below 2
9. Press the NO, CANCEL button, then press the MD EJECT ⏏ button and take out the disc.

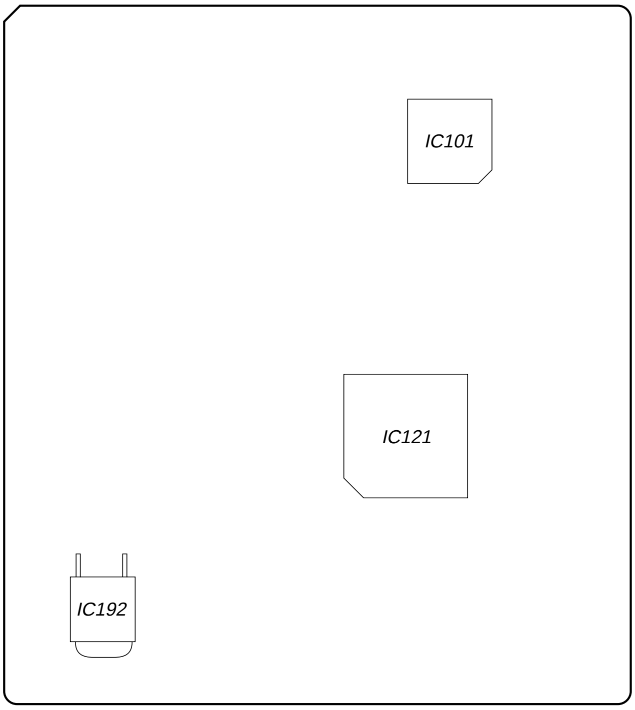
Note 1: If the C1 error and ADER are above other than the specified value at points A (step 8. in the above) or B (step 7. in the above), the focus bias adjustment may not have been carried out properly. Adjust perform the beginning again.

Adjustment Location:

– BD BOARD (Component Side) –



– BD BOARD (Conductor Side) –



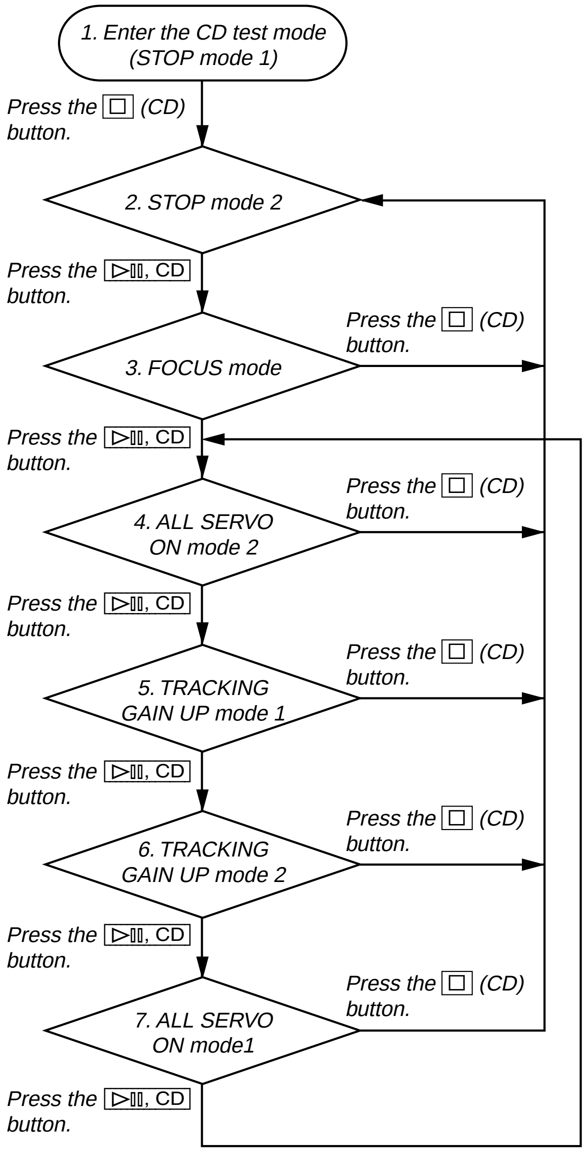
Note: It is useful to use the jig for checking the waveform. (Refer to Servicing Notes on page 4)

CD SECTION

Set the CD test mode when performing confirmations.
After completing the confirmation, release the CD test mode.

In the CD test mode, the set works as following sequence.

CD test mode sequence:



Note1: ALL SERVO ON mode 1 and TRACKING GAIN UP mode 1: LPC ON (Lights up “ALL” indication)
ALL SERVO ON mode 2 and TRACKING GAIN UP mode 2: LPC OFF (Does not lights up “ALL” indication)
*) LPC: Laser power control

Note2: TRACKING GAIN UP mode 1,2 is not used in servicing.

1. Entering the CD Test Mode

1. Press the [POWER] button to turn the power ON.
2. Press the [CD OPEN/CLOSE ⏏] button to open the disc lid, and put a disc.
3. Press the [CD OPEN/CLOSE ⏏] button to close the disc lid.
4. Press the [POWER] button to standby state.
5. While pressing the both [BASS/TREBLE] and [EDIT] buttons, press the button [▷II, CD] → [□] (CD) → [▷II, CD] → [□] (CD).
6. Release the both [BASS/TREBLE] and [EDIT] buttons.
7. After display “CD” for a few seconds, enter the CD test mode (STOP mode 1), and display as below.

Display

88	XX	XX	XXX

2. STOP Mode 2

1. Press the [□] (CD) button to enter the STOP mode 2, and display as below.

Display

88	07	00	3A0

2. Press the [▶▶I] and [I◀◀] button to move the optical pick-up to position of the track where signal is recorded.

3. FOCUS Mode (Traverse Confirmation)

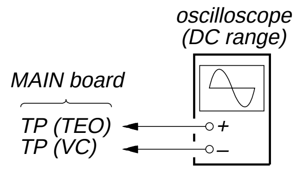
1. Press the [▷II] button to enter the FOCUS mode and display as below. (Focus servo ON. CLV-S, tacking and sled servo OFF)

Display

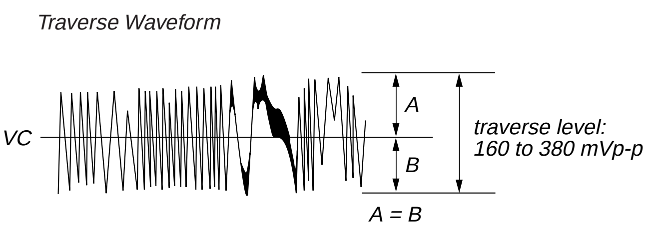
11	07	00	3A0

2. Connect an oscilloscope to TP (TEO) and TP (VC) on the MAIN board.

Connection:



3. Confirm that the traverse level of waveform satisfy specified value as follows.



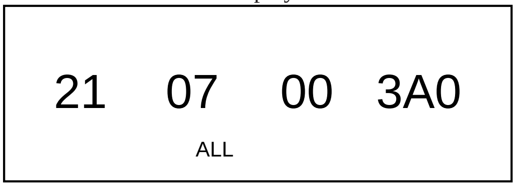
Specified Value:
traverse level: 160 to 380 mVp-p

Connecting Location: MAIN board (See page 29)

4. ALL SERVO ON Mode 1 (RF Level and Jitter Confirmation 1)

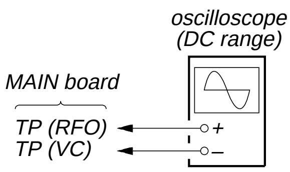
1. Press the [▷II] button four times to enter the ALL SERVO ON mode 1 (start playback the disc) and display as below. (All servo ON. LPC ON)

Display

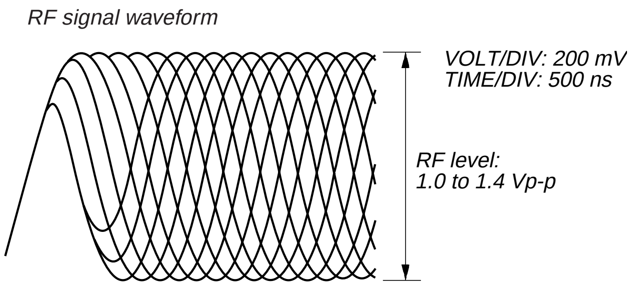


2. Connect an oscilloscope to TP (RFO) and TP (VC) on the MAIN board.

Connection:



3. Confirm that the RF level and jitter of waveform satisfy specified values as follows.



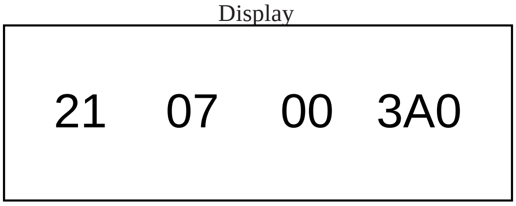
Specified Values:
RF level : 1.0 to 1.4 Vp-p
jitter : less than 9 nsec

Connecting Location: MAIN board

5. ALL SERVO ON Mode 2 (RF Level and Jitter Confirmation 2)

1. Press the [▷II] button to enter the LPC OFF mode and display as below. (All servo ON. LPC OFF)

Display



2. Confirm that the RF level and jitter of waveform satisfy specified values as follows.

Specified Values:
RF level : 0.8 to 1.4 Vp-p
jitter : less than 9 nsec

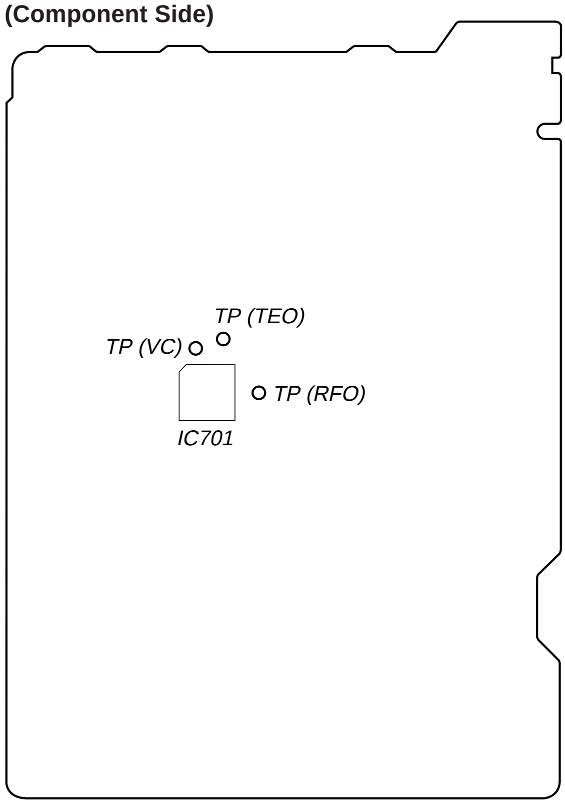
If the RF level and jitter are out of specifide values, measure again after clean the object lens by an applicator with lens cleaning liquid.

6. Releasing the CD Test Mode

1. Press the [□] (CD) button to stop rotate the disc.
2. Press the [POWER] button or [RESET] switch (bottom of the player unit) to release the CD test mode and turn to standby state.

Connecting Location:

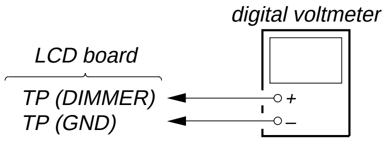
– MAIN BOARD –
(Component Side)



DISPLAY SECITON

Dimmer Adjustment

Connection:



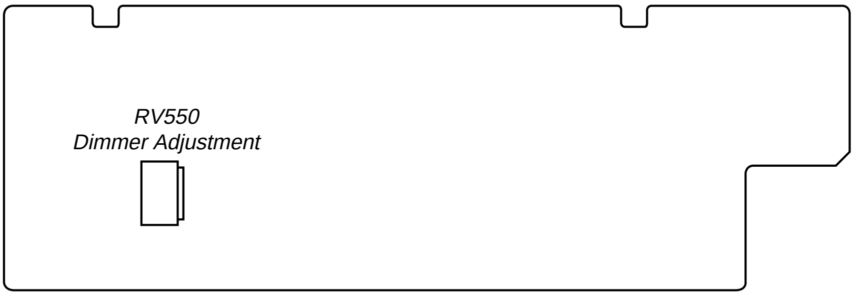
1. Connect a digital voltmeter to TP (DIMMER) and TP (GND) on the LCD board.
2. Adjust RV550 so that the value of digital voltmeter becomes 2.83 V.

Specified Value: 2.83 to 2.93 V

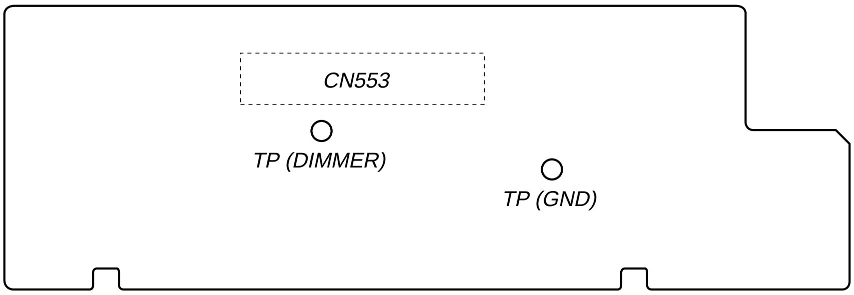
Note: Connect the liquid crystal display unit (LCD500) to the LCD board when performing adjustment.

Adjustment Location:

– LCD BOARD (Component Side) –

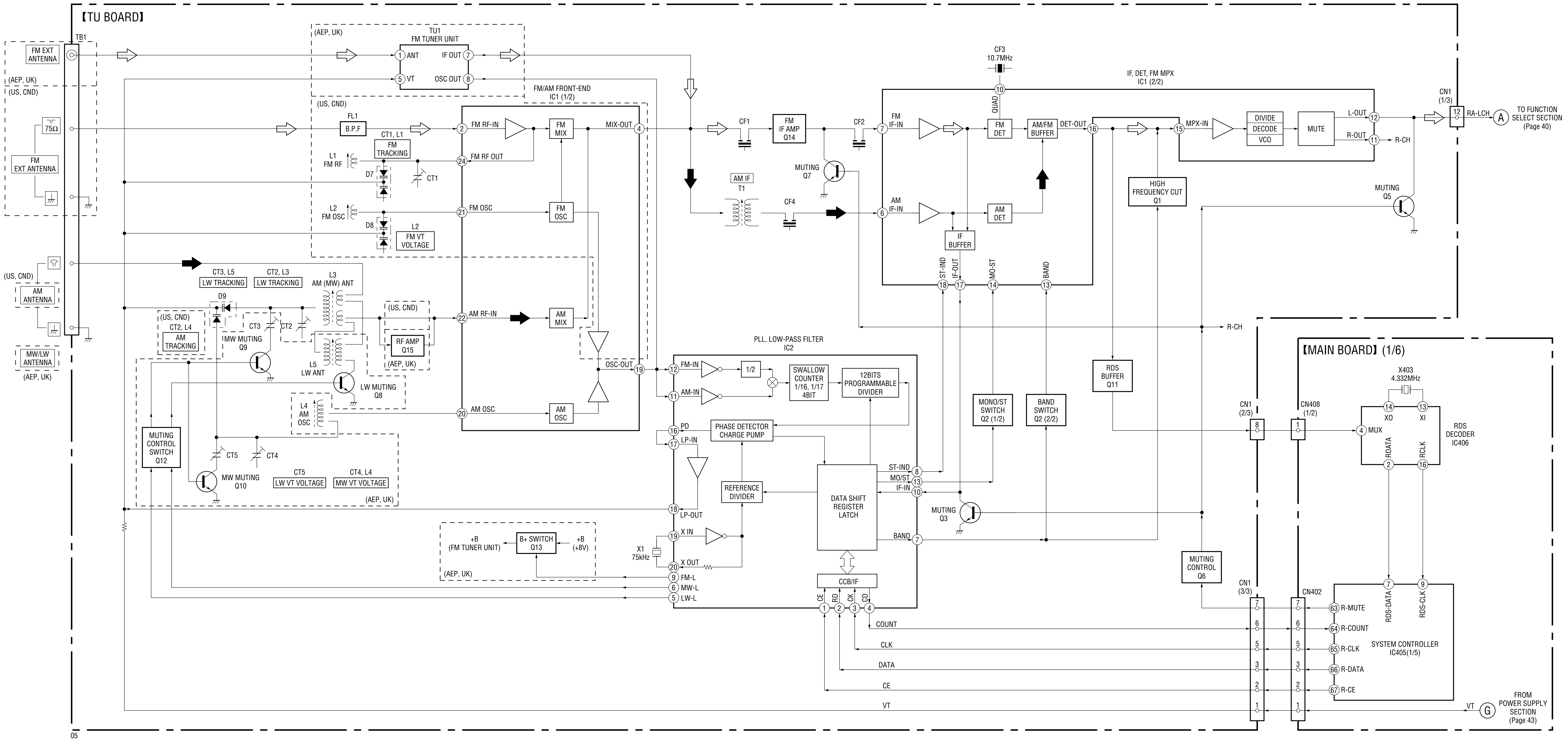


– LCD BOARD (Conductor Side) –



SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM – TUNER Section –



• SIGNAL PATH

: FM

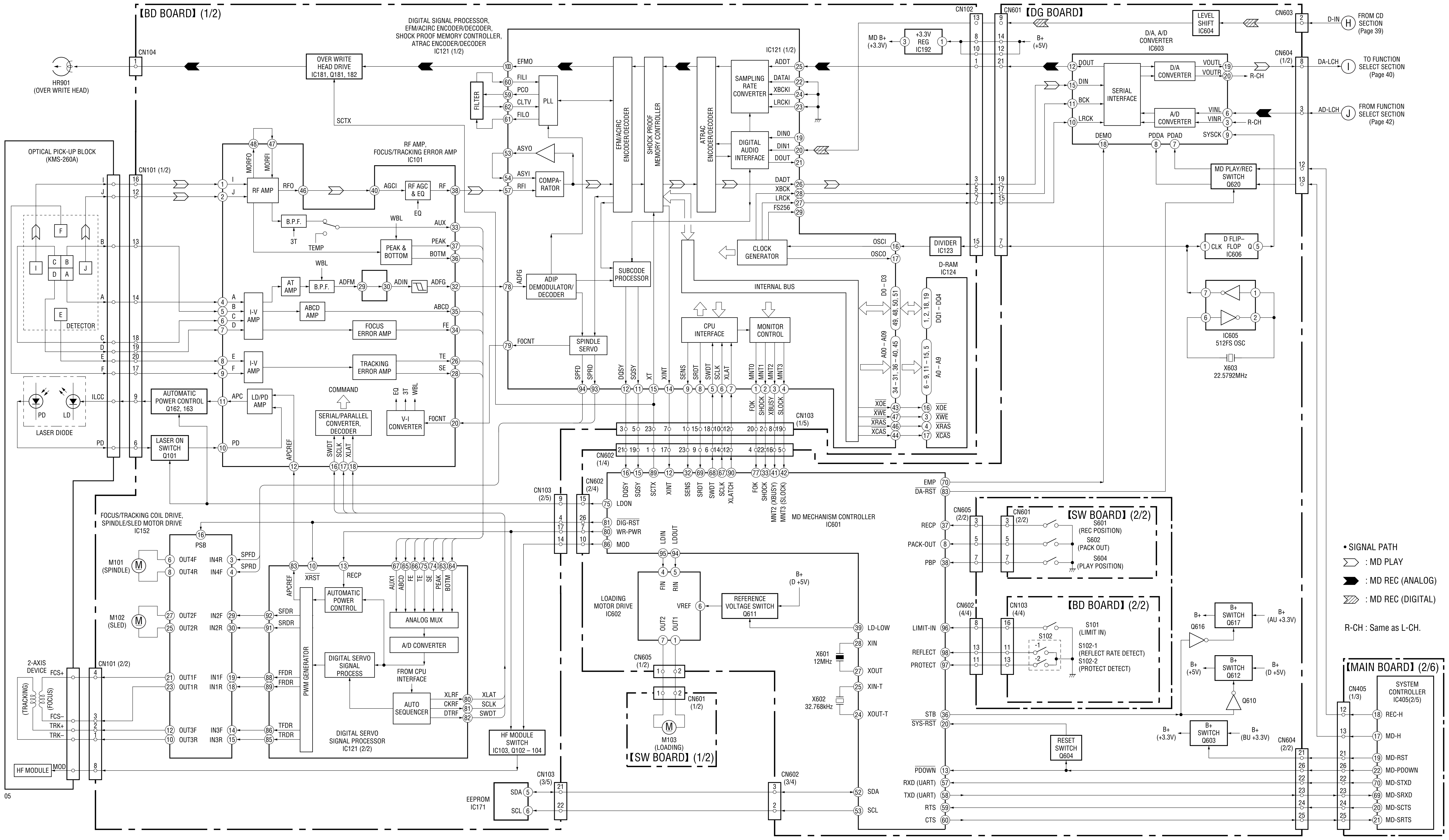
: AM

• Abbreviation

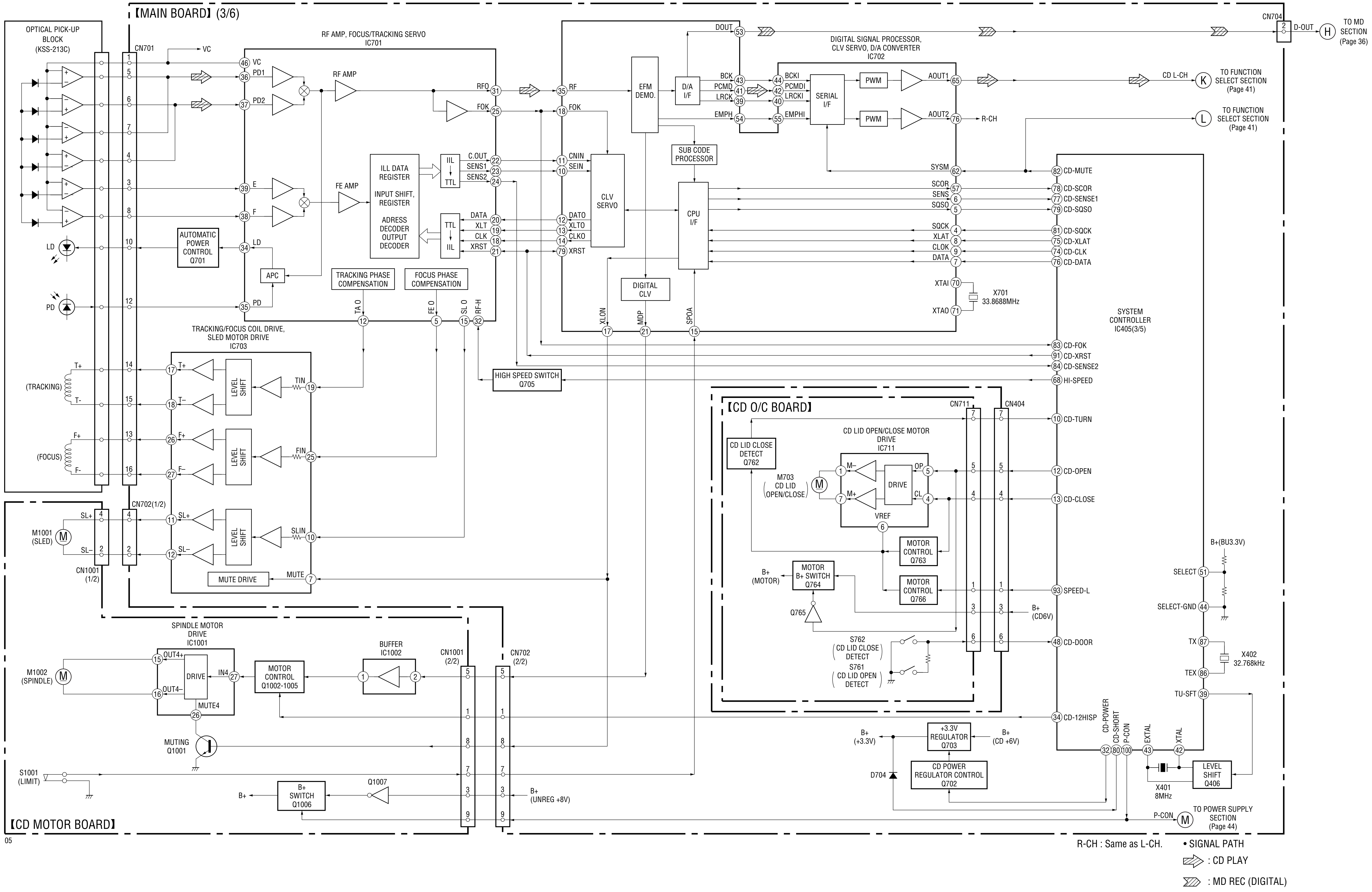
CND : Canadian

R-CH : Same as L-CH.

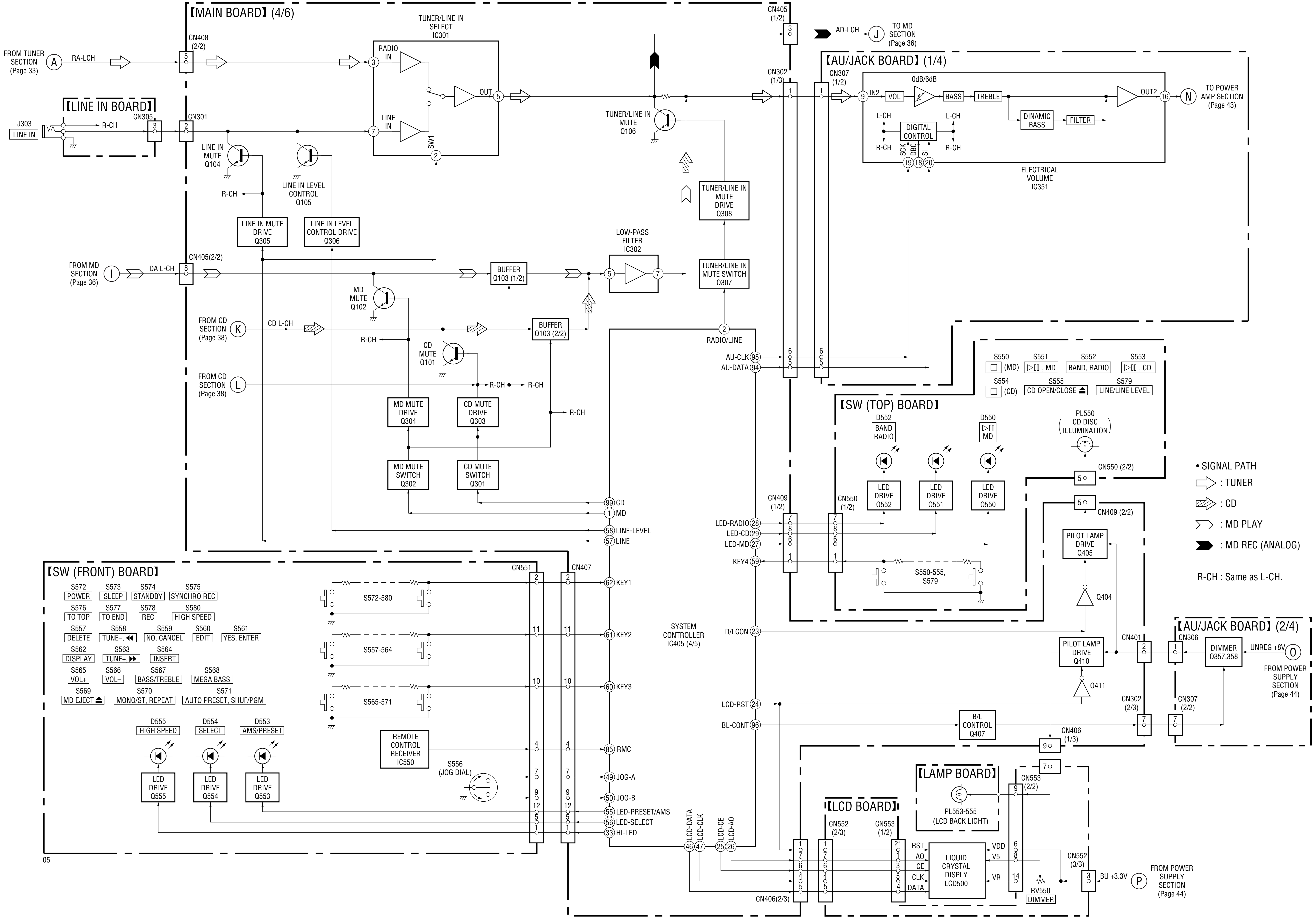
6-2. BLOCK DIAGRAM – MD Section –



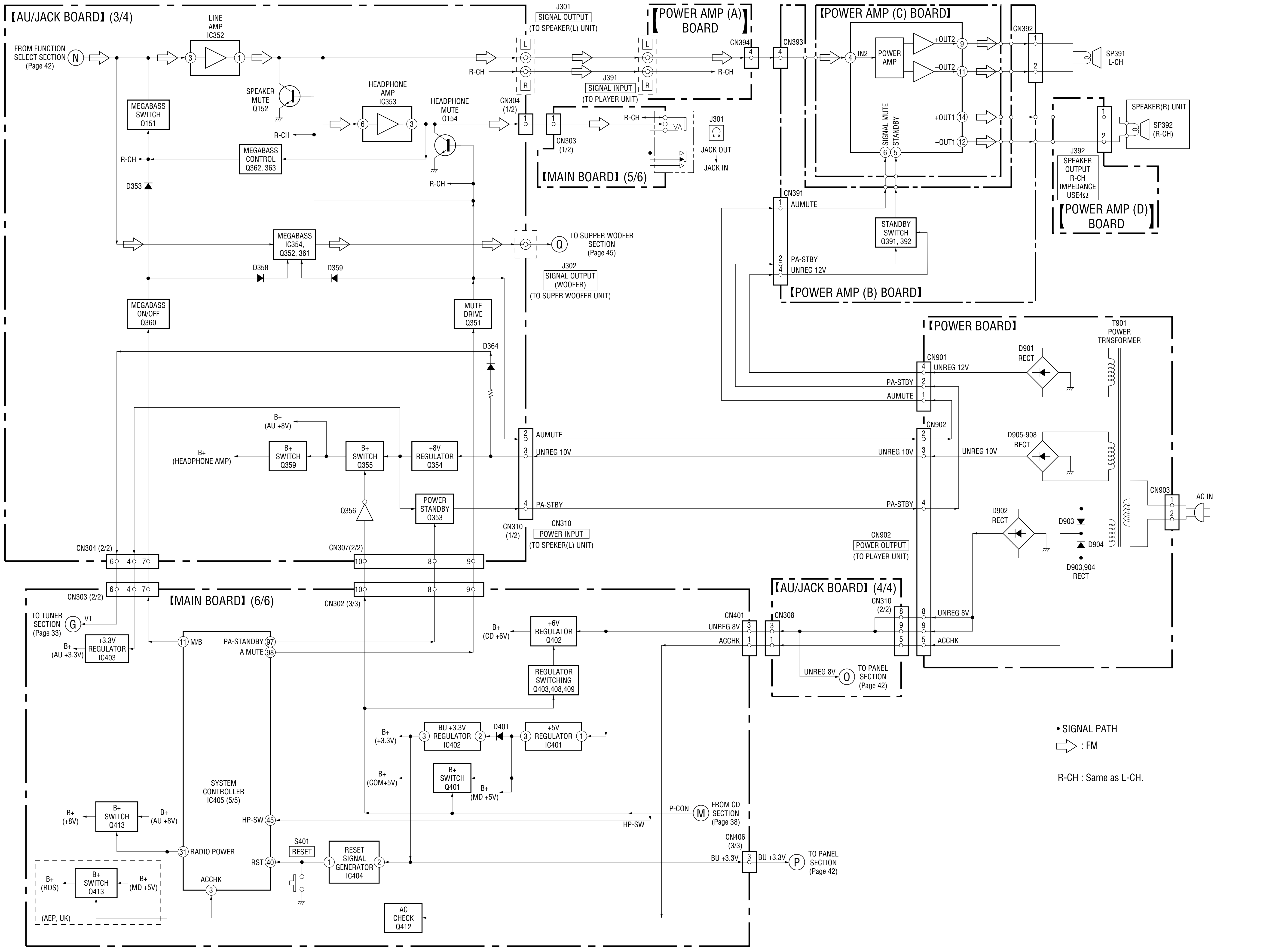
6-3. BLOCK DIAGRAM – CD Section –



6-4. BLOCK DIAGRAM – FUNCTION SELECT/PANEL Section –

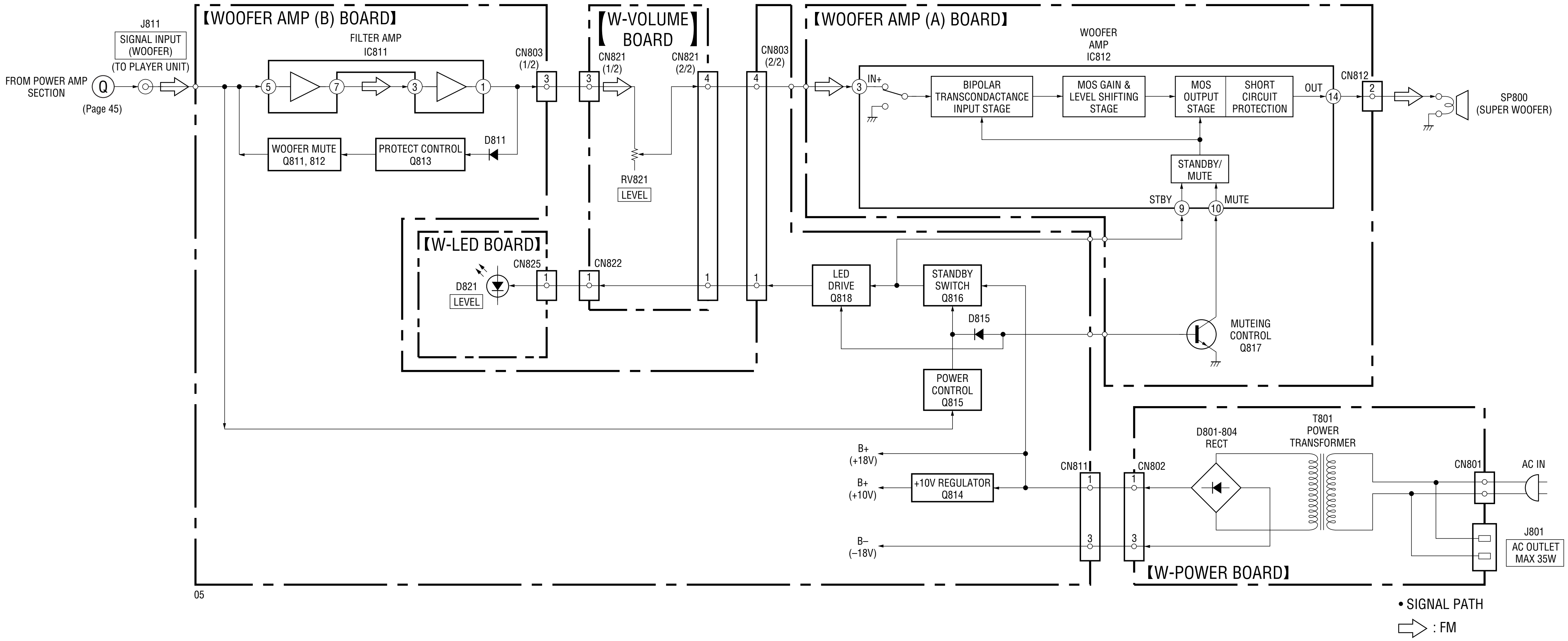


6-5. BLOCK DIAGRAM – POWER AMP/POWER SUPPLY Section –



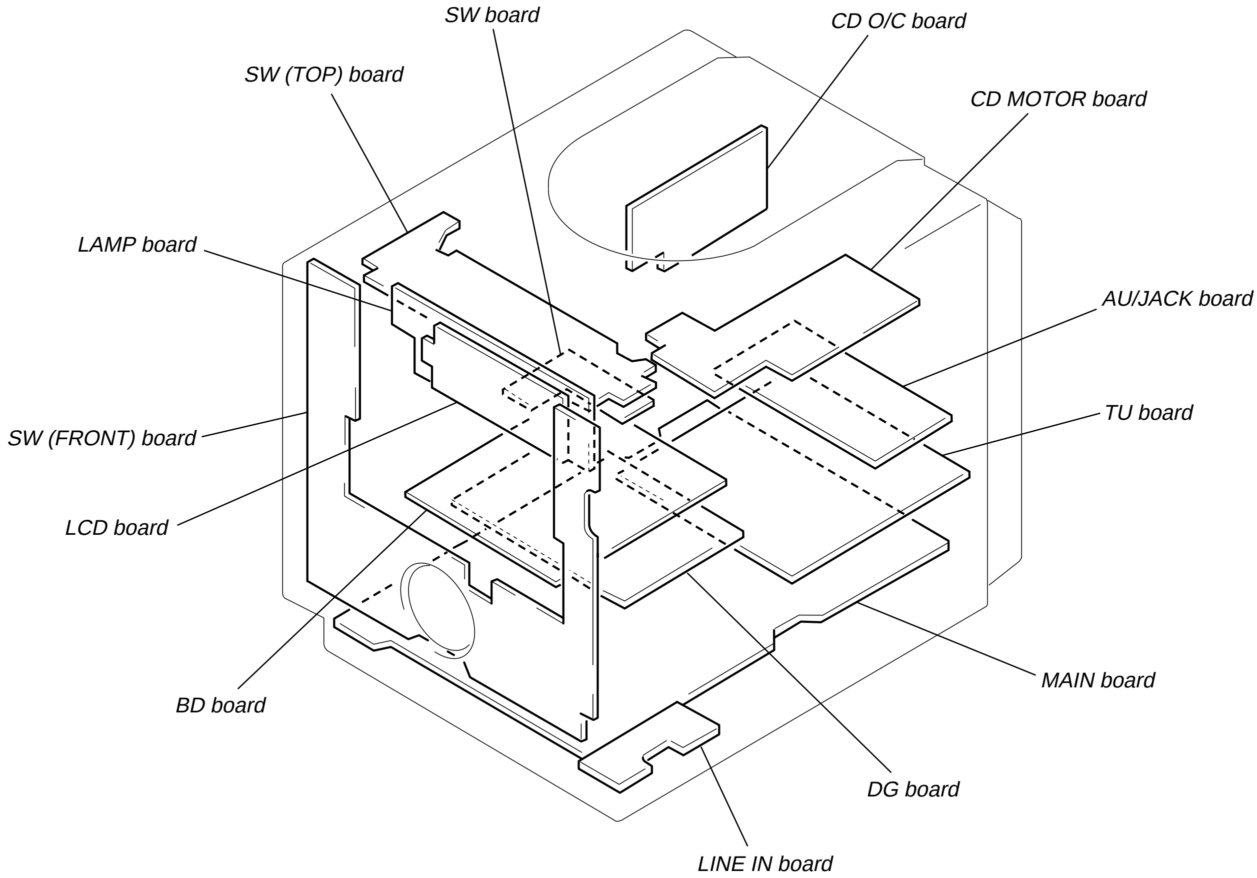
05

6-6. BLOCK DIAGRAM – SUPER WOOFER Section –

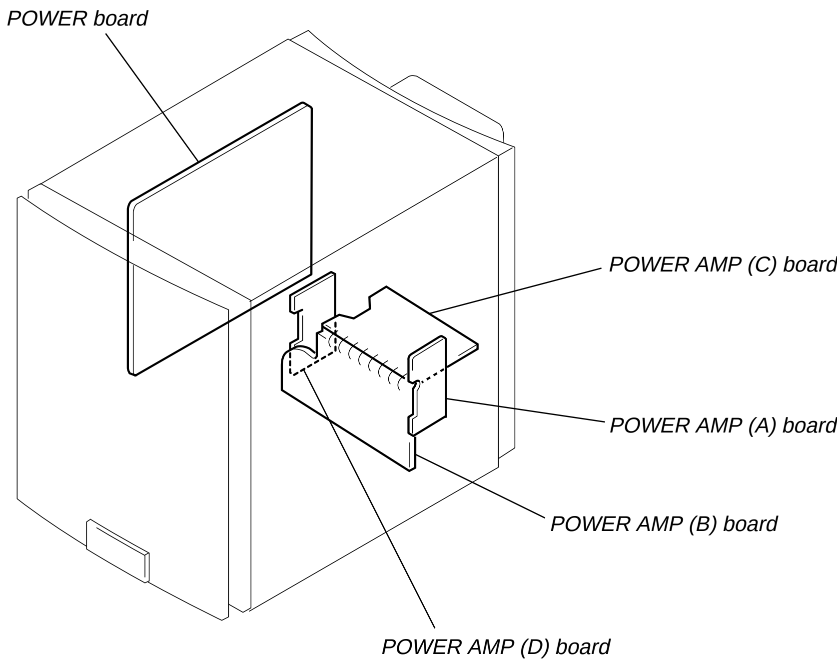


• **Circuit Bords Location**

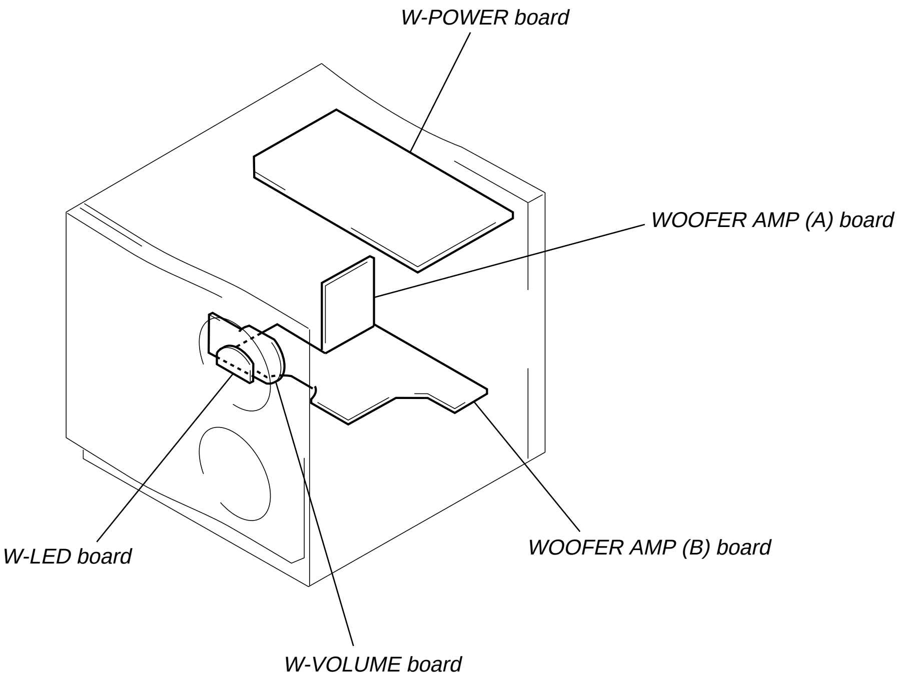
– Player Unit –



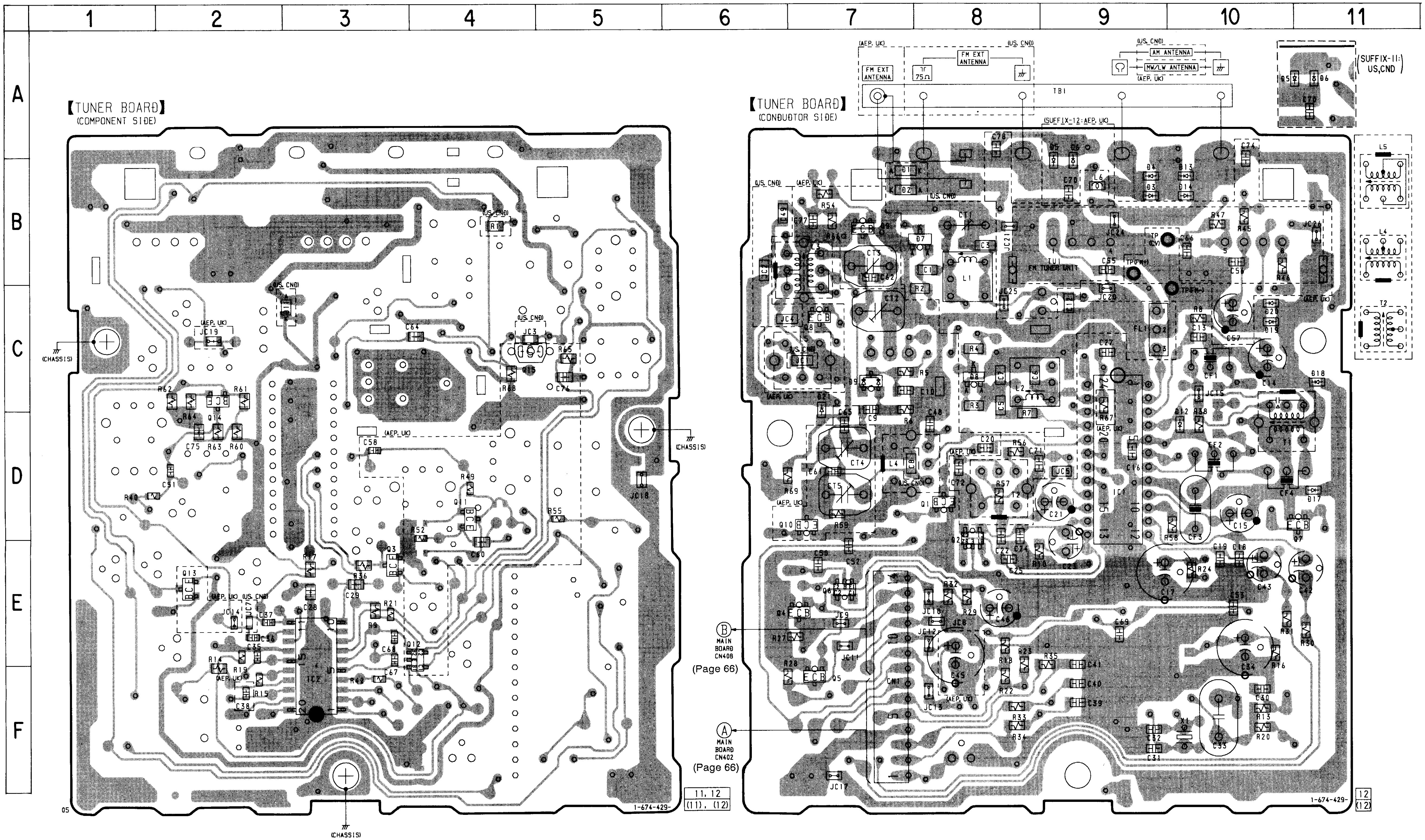
– Speaker (L) Section –



– Super Woofer Section –



6-7. PRINTED WIRING BOARD – TUNER Section – • See page 47 for Circuit Boards Location.



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1	B-7	IC1	D-9
D2	B-7	IC2	F-3
D3	B-9		
D4	B-9	Q1	D-8
D5	B-9	Q2	E-8
D6	B-9	Q3	E-3
D7	B-8	Q4	E-7
D8	C-8	Q5	F-7
D9	C-7	Q6	E-7
D11	C-3	Q7	D-11
D12	D-10	Q8	C-7
D13	B-10	Q9	B-7
D14	B-10	Q10	D-7
D17	D-11	Q11	D-4
D18	C-11	Q12	E-4
D19	C-10	Q13	E-2
D20	C-10	Q14	C-2
D21	C-7	Q15	C-4

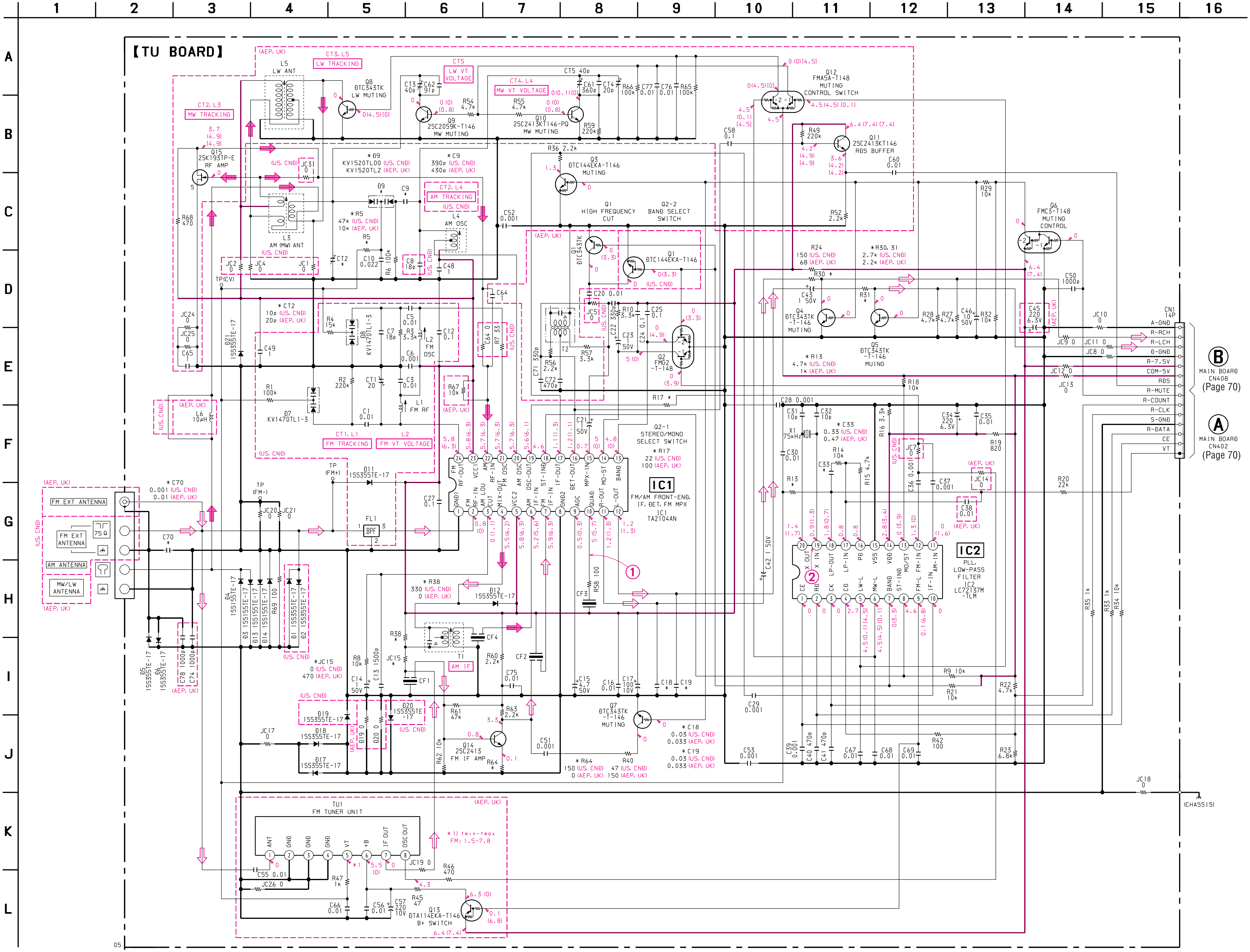
Note on Printed Wiring Board:
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- [ ]· : indicates side identified with part number.
- ○ : Through hole.
- △ : internal component.
- ░░ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

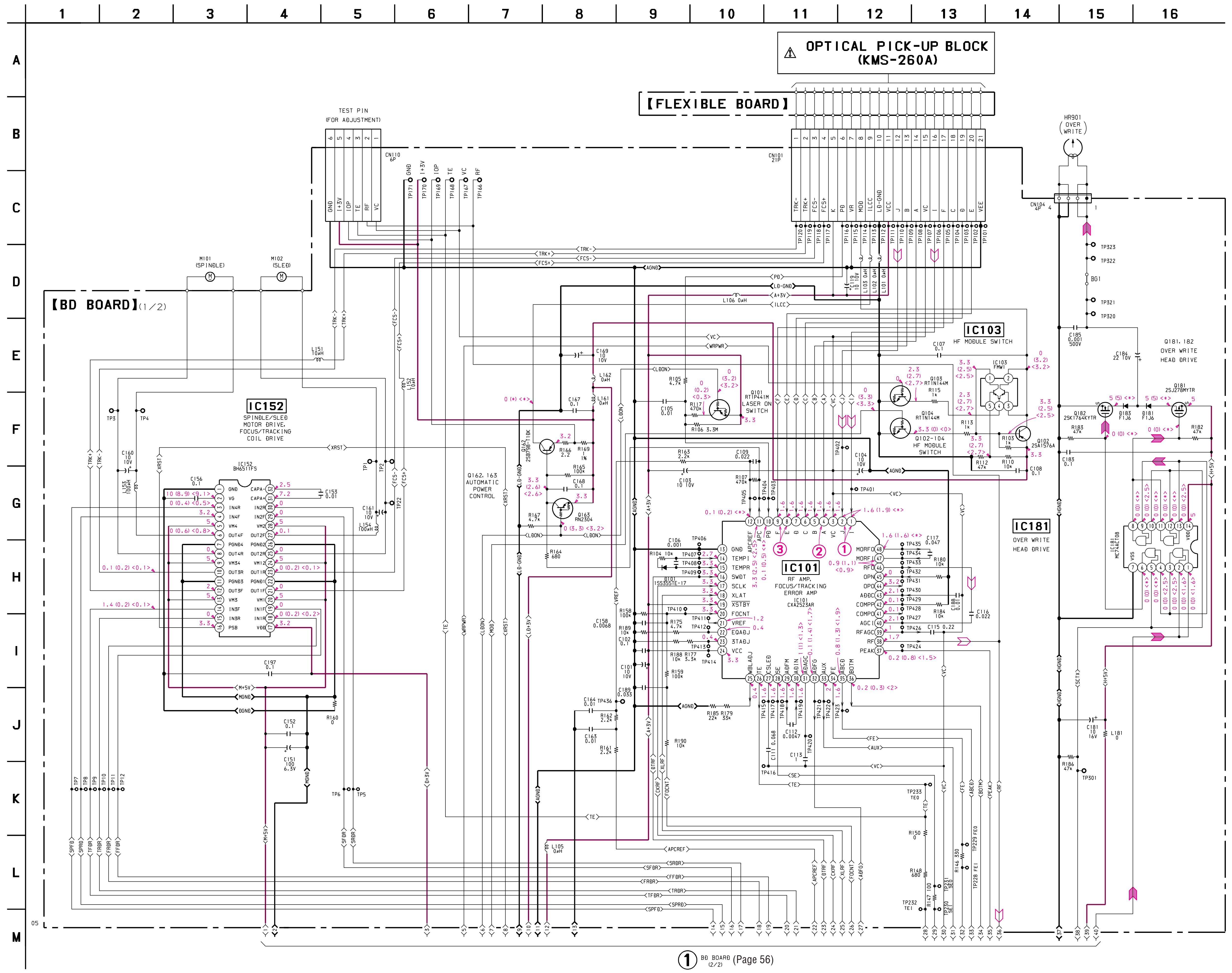
Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

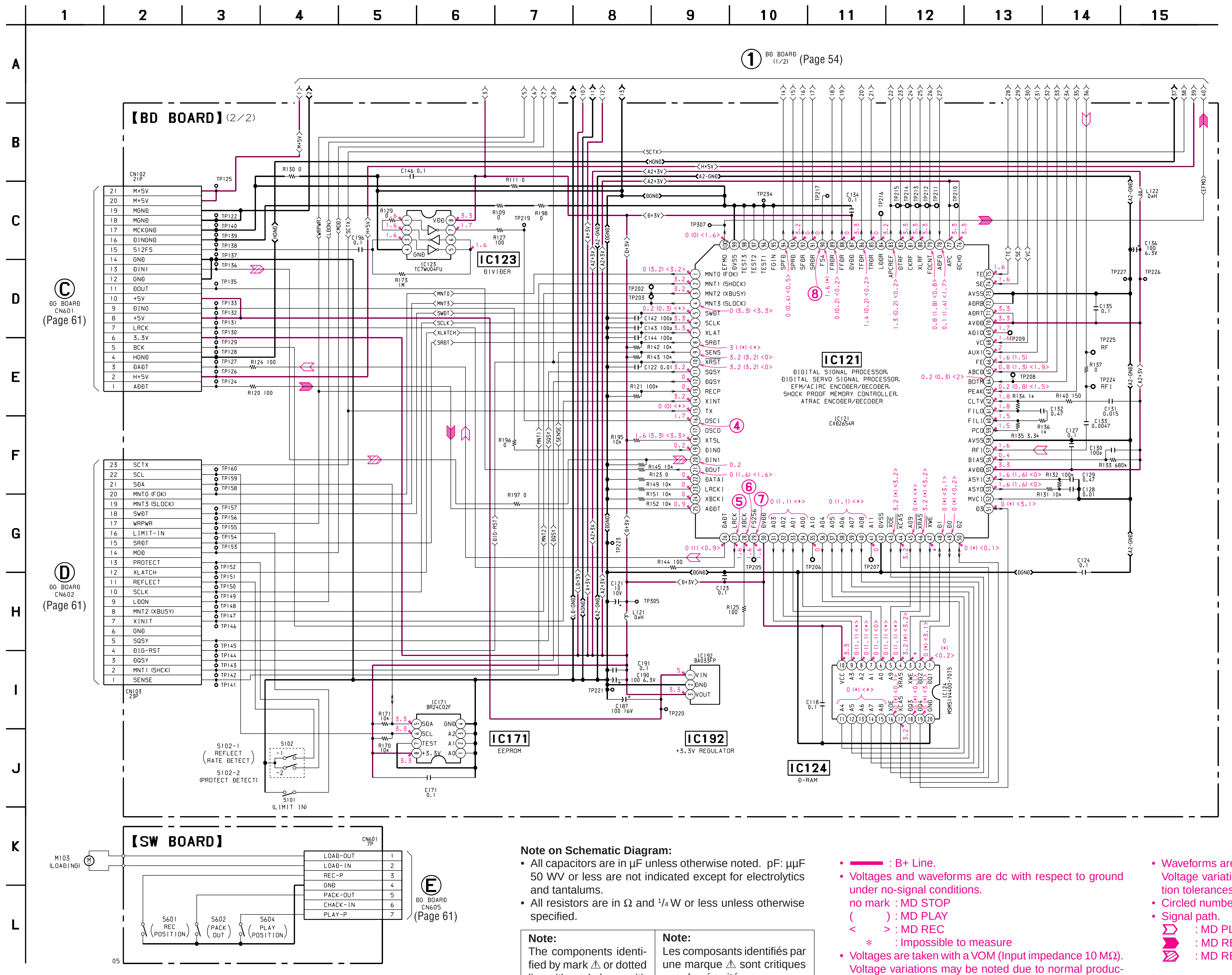
- Abbreviation
  CND : Canadian model

Note on Schematic Diagram:
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- ▬ : B+ Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM (MW)
  [ ] : LW
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM (MW/LW)
- Abbreviation
  CND : Canadian model


【TU BOARD】
FM EXT ANTENNA
FM EXT ANTENNA
75Ω
AM ANTENNA
MW/LW ANTENNA
IC1
FM/AM FRONT-END, IF, DET, FM MPX
IC1 TA2104AN
IC2
PLL, LOW-PASS FILTER
IC2 LC72137M -TLM
Q15 2SK193TP-E RF AMP
Q8 DTC343TK LW MUTING
Q9 2SC2059K-T146 MW MUTING
Q10 2SC2413KT146-PQ MW MUTING
Q12 FMA5A-T148 MUTING CONTROL SWITCH
Q11 2SC2413KT146 RDS BUFFER
Q3 DTC144EKA-T146 MUTING
Q1 HIGH FREQUENCY CUT
Q2-2 BAND SELECT SWITCH
Q2-1 STEREO/MONO SELECT SWITCH
Q6 FMC3-T148 MUTING CONTROL
Q4 DTC343TK-T146 MUTING
Q5 DTC343TK-T146 MUING
Q7 DTC343TK-T146 MUTING
Q14 2SC2413 FM IF AMP
Q13 DTA114EKA-T146 B+ SWITCH
TU1 FM TUNER UNIT
ANT GND GND GND VT +B IF OUT OSC OUT
*1) fmin-fmax FM: 1.5-7.8
L5 LW ANT
L3 AM (MW) ANT
L4 AM OSC
L2 FM OSC
L1 FM RF
FL1 BPF
T1 AM IF
X1 75kHz
CN1 14P
A-GND R-RCH R-LCH D-GND R-7.5V COM-5V RDS R-MUTE R-COUNT R-CLK S-GND R-DATA CE VT
MAIN BOARD CN408 (Page 70)
MAIN BOARD CN402 (Page 70)
(CHASSIS)

6-9. SCHEMATIC DIAGRAM – BD Section – • See page 99 for Waveforms. • See page 102 for IC Block Diagrams.





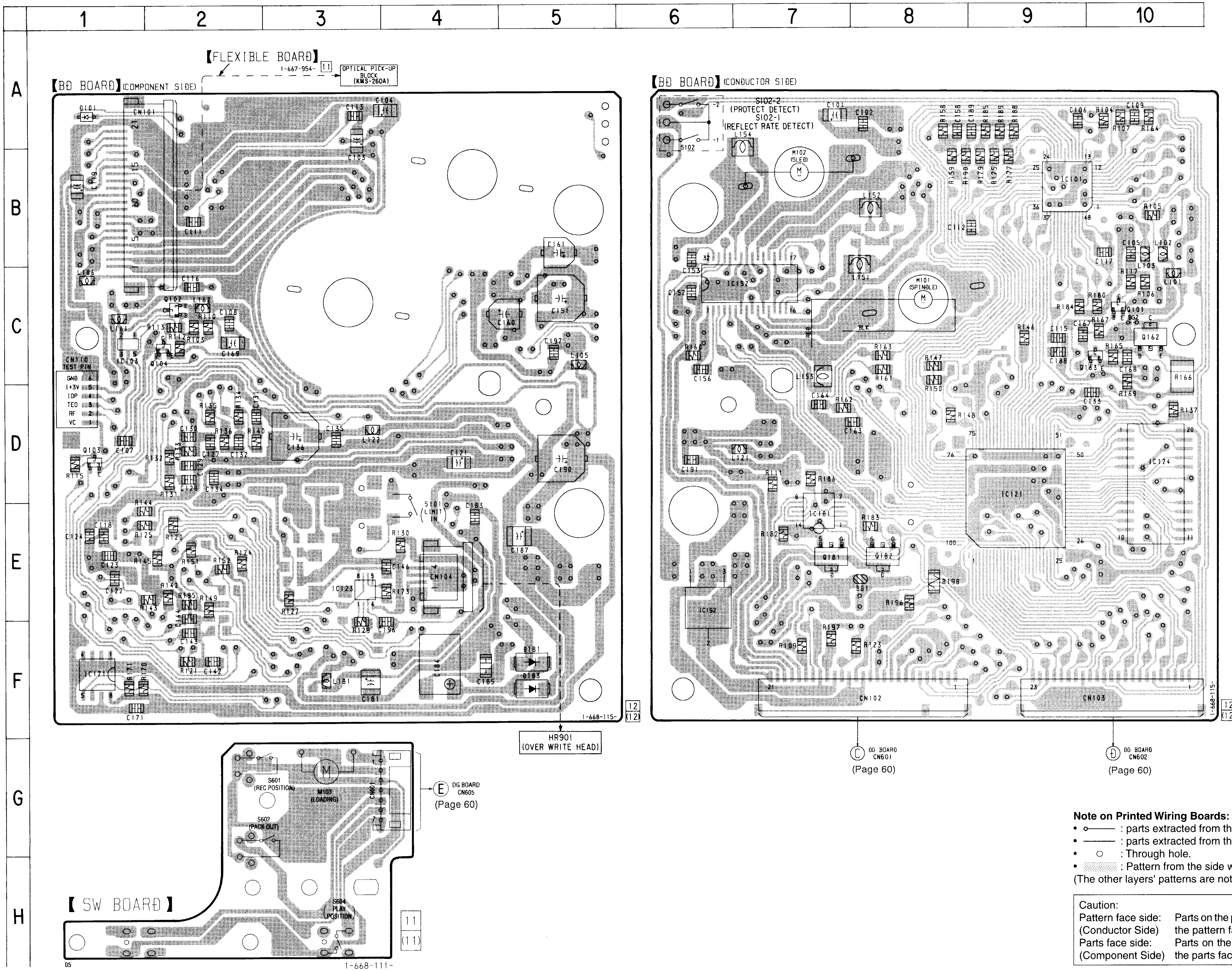
Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : MD STOP
  ( ) : MD PLAY
  < > : MD REC
  ∗ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  : MD PLAY
  : MD REC (ANALOG)
  : MD REC (DIGITAL)

6-10. PRINTED WIRING BOARDS – BD Section – • See page 47 for Circuit Boards Location.



• **Semiconductor Location**

Ref. No.	Location
D101	A-1
D181	F-5
D183	F-5
IC101	B-9
IC103	C-1
IC121	D-9
IC123	E-3
IC124	D-10
IC152	C-7
IC171	F-1
IC181	E-7
IC192	E-6
Q101	C-10
Q102	C-2
Q103	D-1
Q104	C-2
Q162	C-10
Q163	C-10
Q181	E-7
Q182	E-8

Note on Printed Wiring Boards:

- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ░░░ : Pattern from the side which enables seeing.

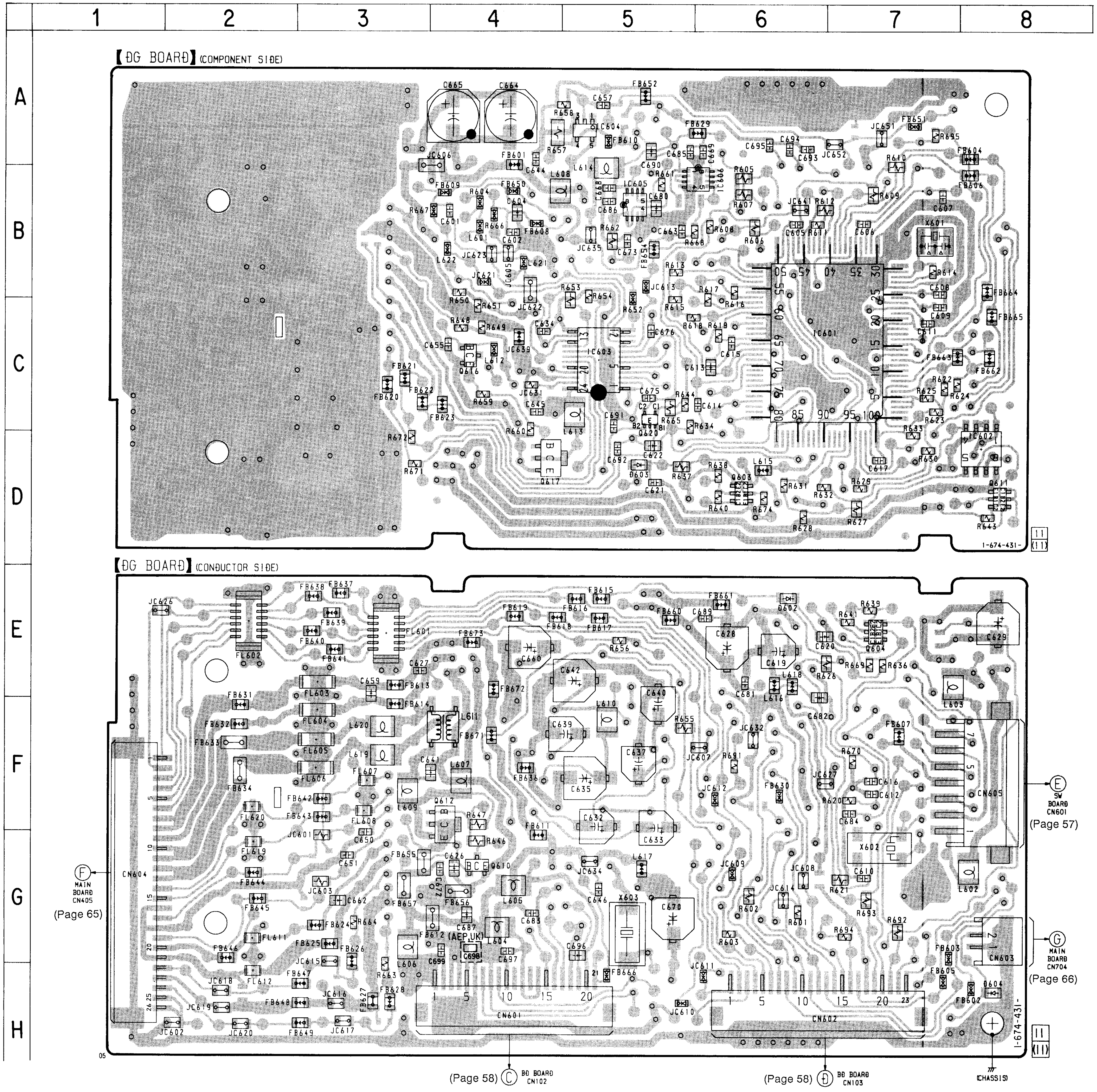
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

6-11. PRINTED WIRING BOARD – DG Section – • See page 47 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D602	E-6
D603	D-5
D604	H-8
IC601	C-7
IC602	D-8
IC603	C-5
IC604	A-5
IC605	B-5
IC606	B-6
Q603	D-6
Q604	E-7
Q610	G-4
Q611	D-8
Q612	F-4
Q616	C-4
Q617	D-4
Q620	C-5



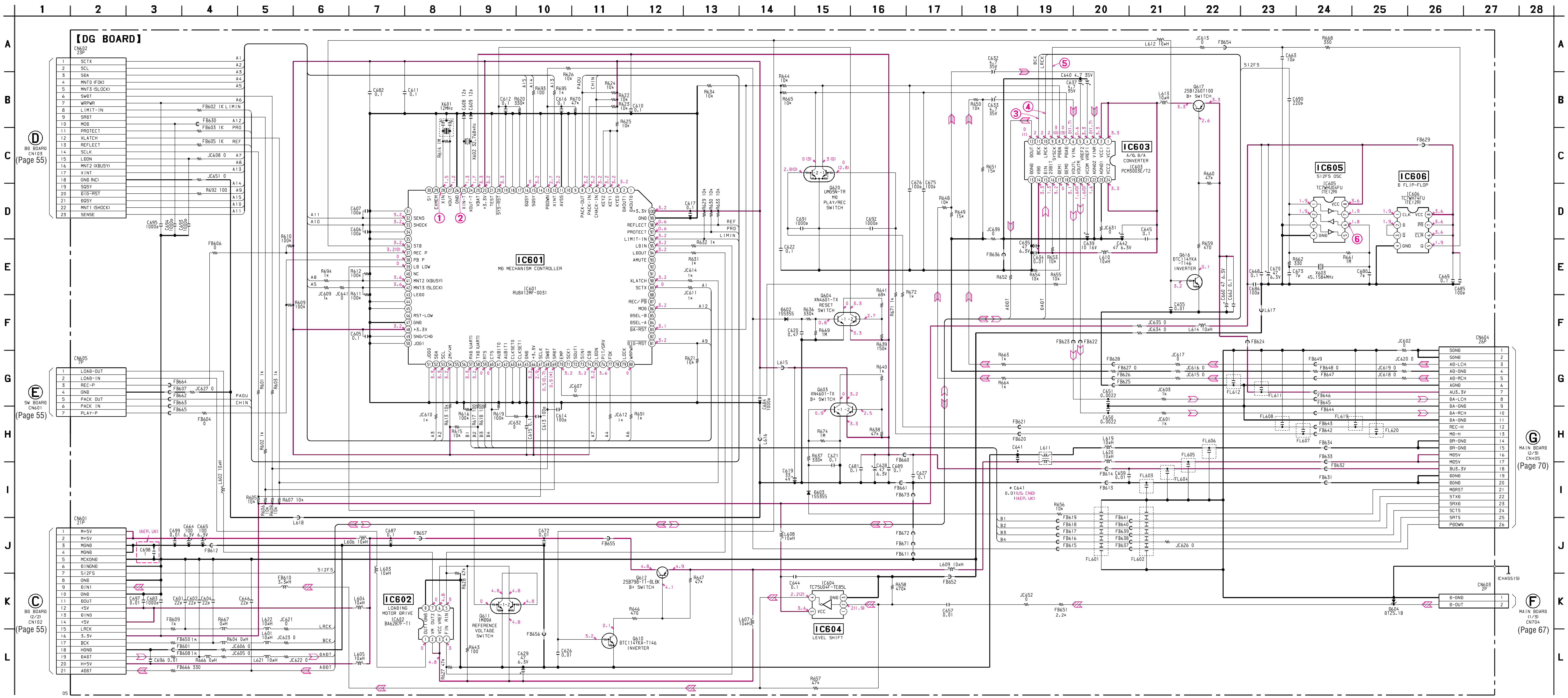
Note on Printed Wiring Board:

- ○ : Through hole.
- △ : internal component.
- ░ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

6-12. SCHEMATIC DIAGRAM – DG Section – • See page 99 for Waveforms. • See page 104 for IC Block Diagrams.



Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▬ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : MD PLAY
  ( ) : MD STOP
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  : MD PLAY
  : MD REC (ANALOG)
  : MD REC (DIGITAL)
- Abbreviation
  CND : Canadian model

6-13. PRINTED WIRING BOARDS – MAIN Section – • See page 47 for Circuit Boards Location.

• **Semiconductor Location**

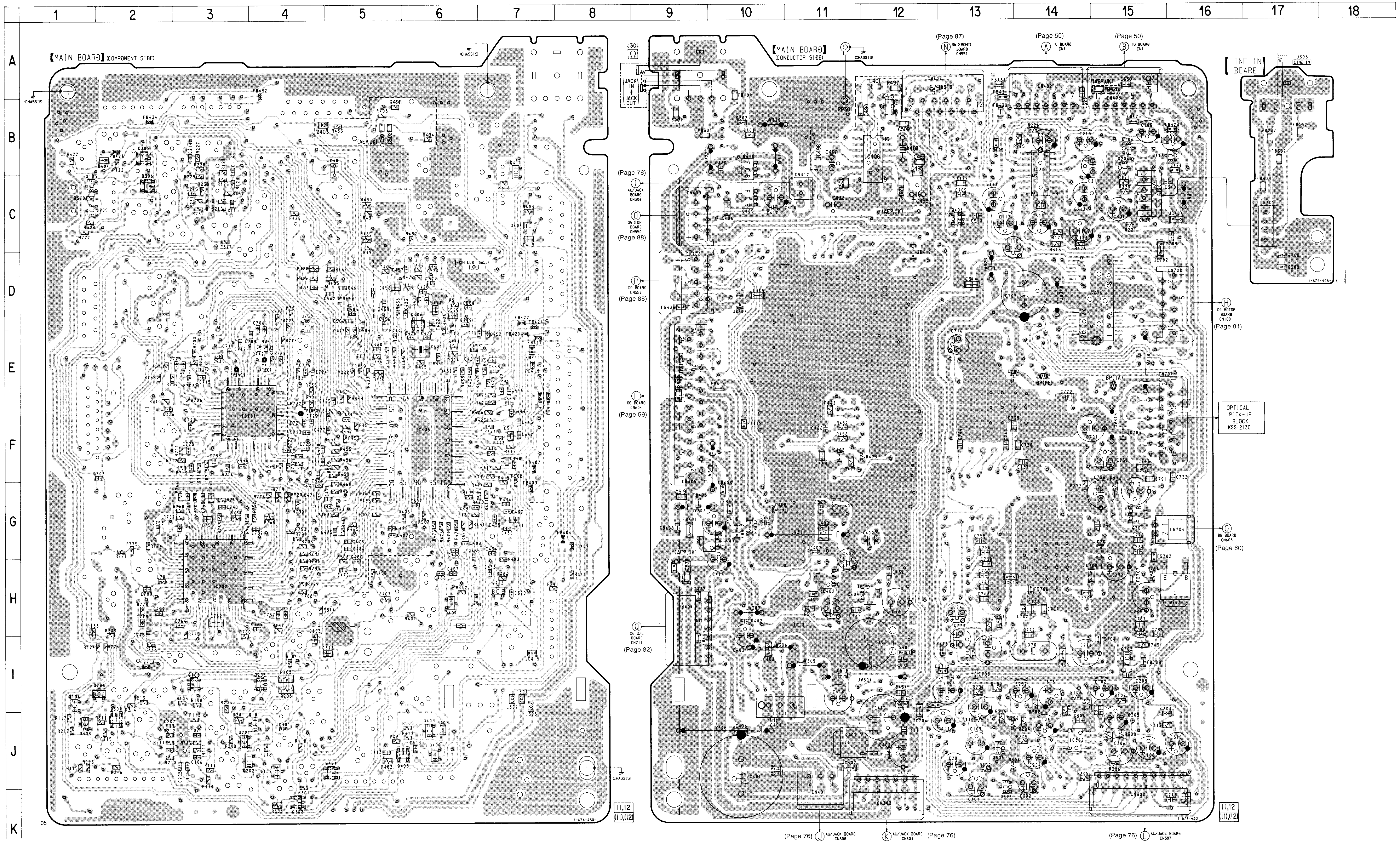
Ref. No.	Location
D301	B-10
D302	B-10
D303	I-4
D304	J-16
D308	D-17
D309	D-17
D401	H-11
D402	J-12
D404	B-2
D407	J-6
D703	I-15
IC301	C-14
IC302	J-14
IC401	J-10
IC402	H-11
IC403	G-9
IC404	H-12
IC405	F-6
IC406	B-12
IC701	F-3
IC702	H-3
IC703	D-15
Q101	J-4
Q102	J-4
Q103	I-3
Q104	B-15
Q105	C-1
Q106	I-1
Q201	J-3
Q202	J-3
Q203	I-4
Q204	B-15
Q205	C-1
Q206	I-2
Q301	J-5
Q302	K-4
Q303	J-13
Q304	K-13
Q305	B-2
Q306	C-2
Q307	J-2
Q308	J-1
Q401	C-13
Q402	J-11
Q403	J-6
Q404	C-7
Q405	C-10
Q406	D-6
Q407	H-6
Q408	J-6
Q409	J-6
Q410	B-10
Q411	B-7
Q412	H-7
Q413	B-16
Q415	B-12
Q701	G-15
Q702	I-15
Q703	H-16
Q705	D-4

Note on Printed Wiring Boards:

- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ░░░ : Pattern from the side which enables seeing.

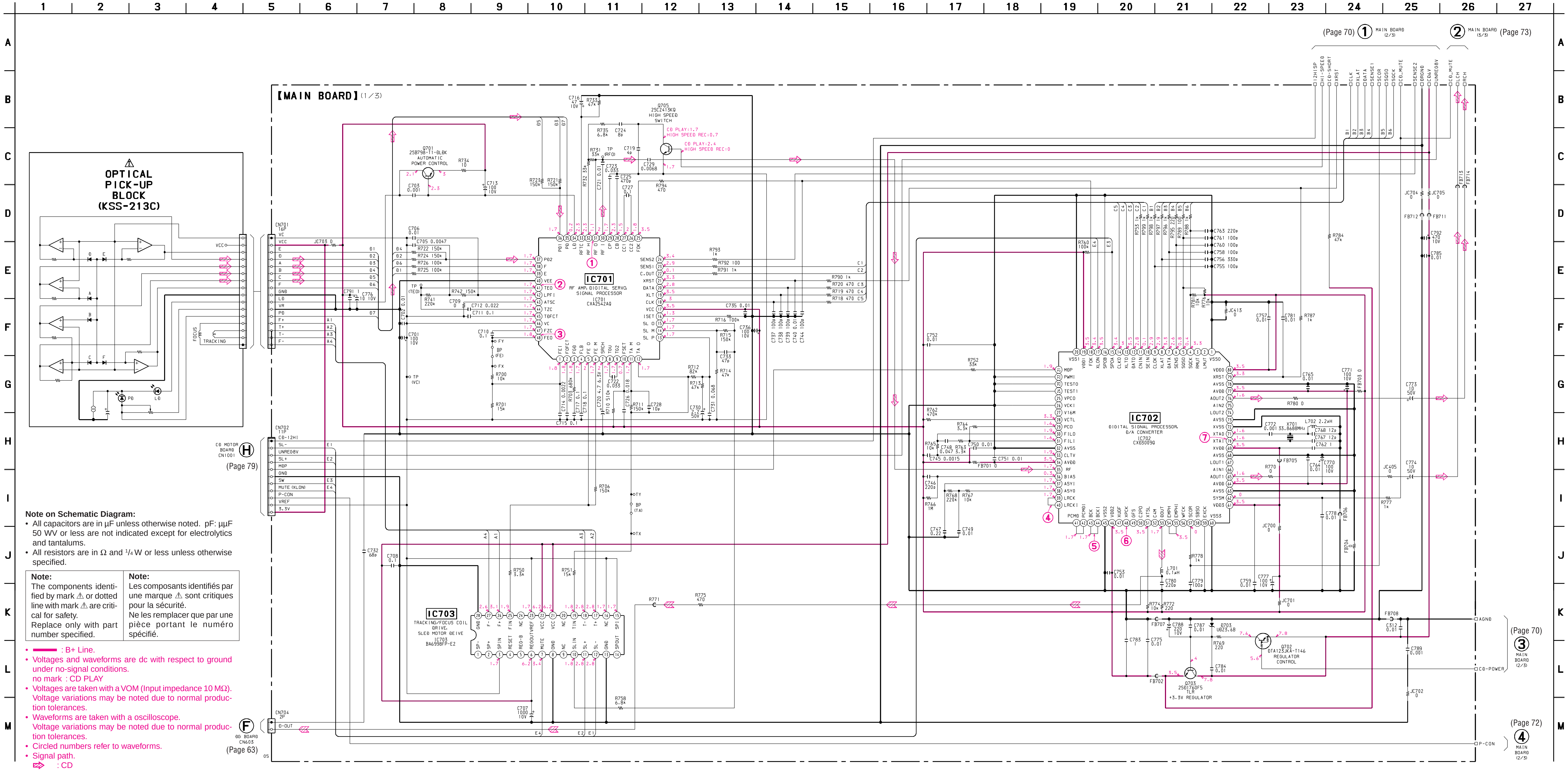
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.



6-14. SCHEMATIC DIAGRAM – MAIN (CD) Section –

• See page 100 for Waveforms. • See page 105 for IC Block Diagrams.



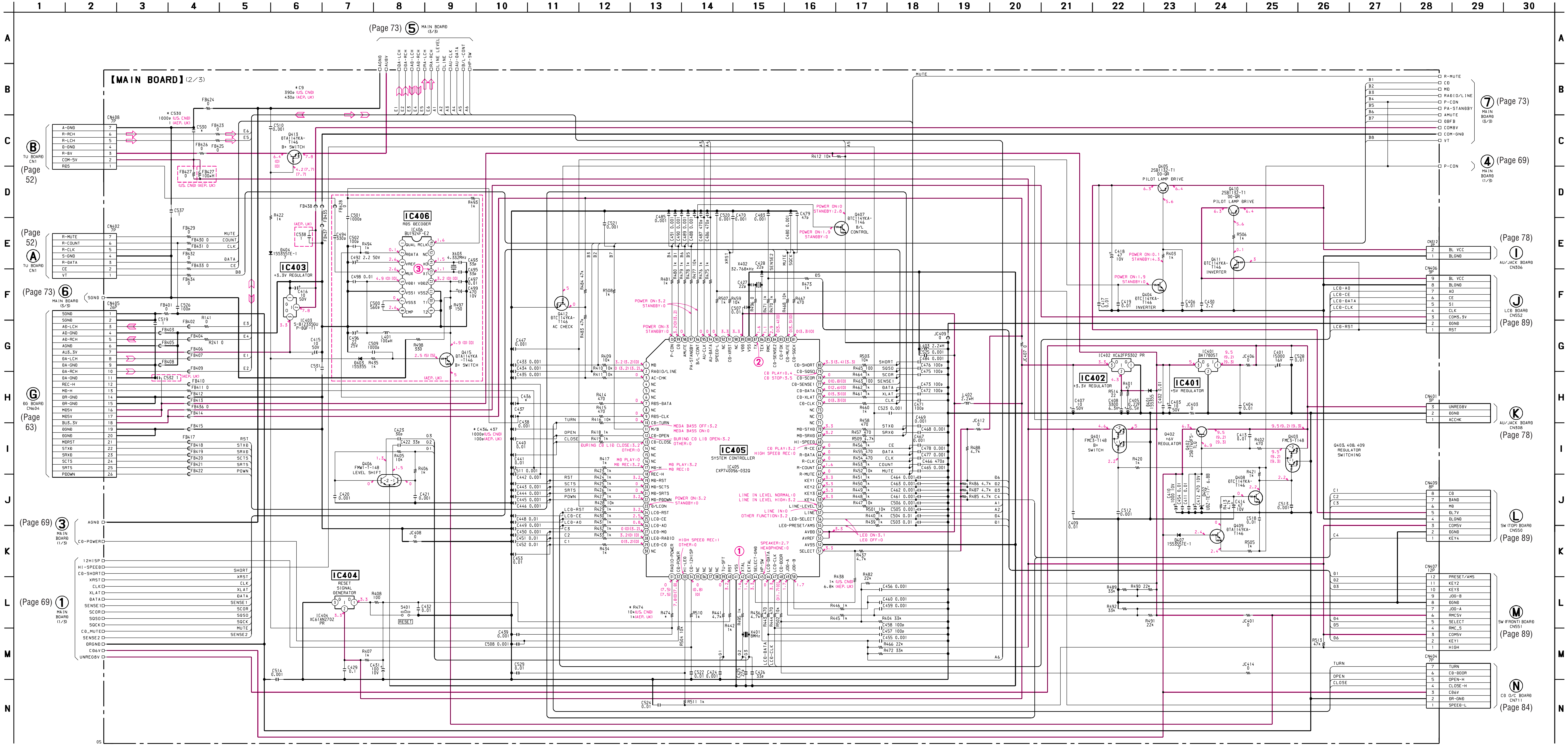
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $^{1}/_{4}$ W or less unless otherwise specified.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions. no mark : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD
  ⇨ : MD REC

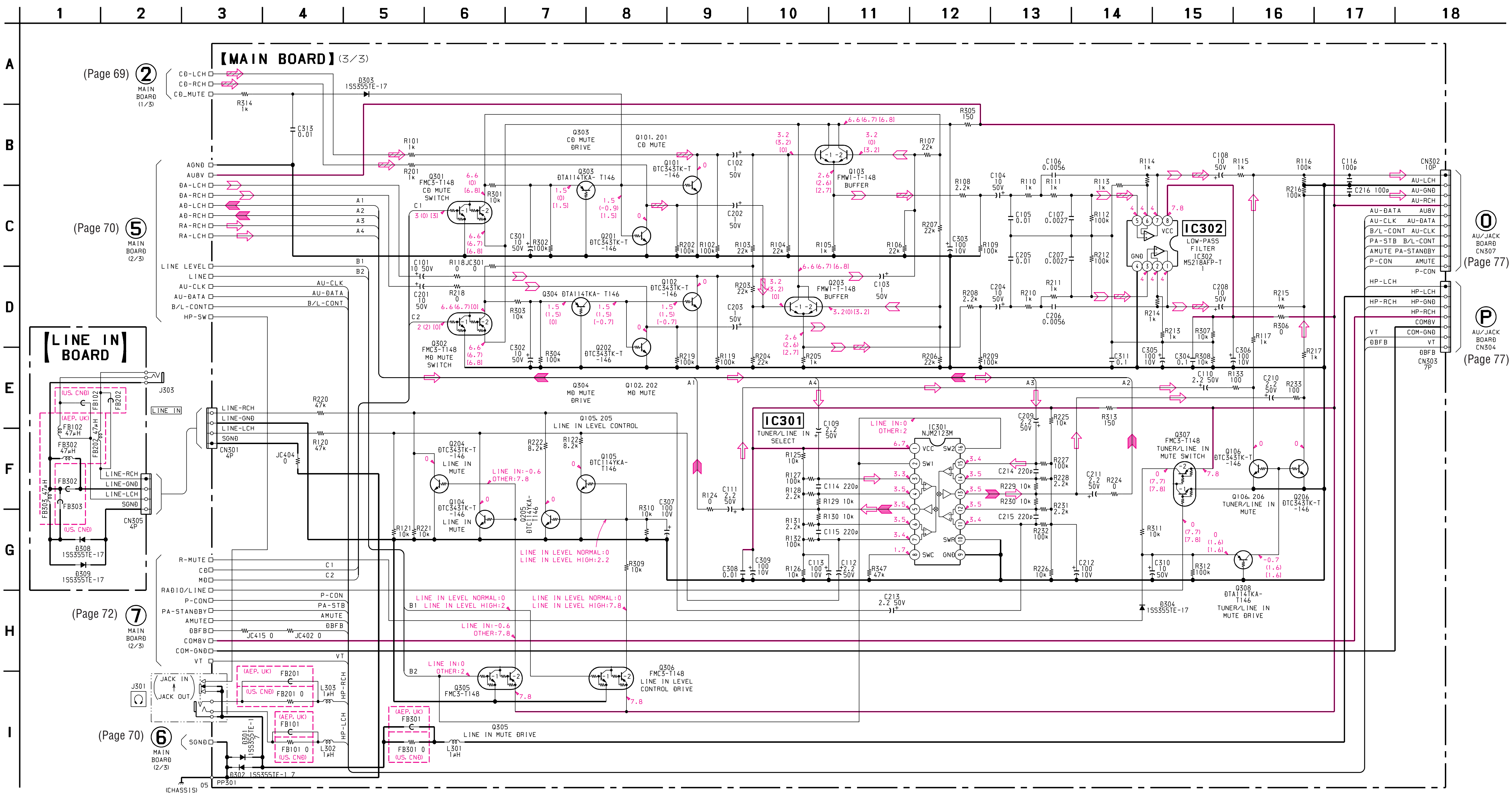
6-15. SCHEMATIC DIAGRAM – MAIN (SYSTEM CONTROL) Section – • See page 100 for Waveforms. • See page 104 for IC Block Diagram.



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▬▬ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : CD PLAY
  [ ] : MD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : MD PLAY
  ➧ : MD REC
- Abbreviation
  CND : Canadian model

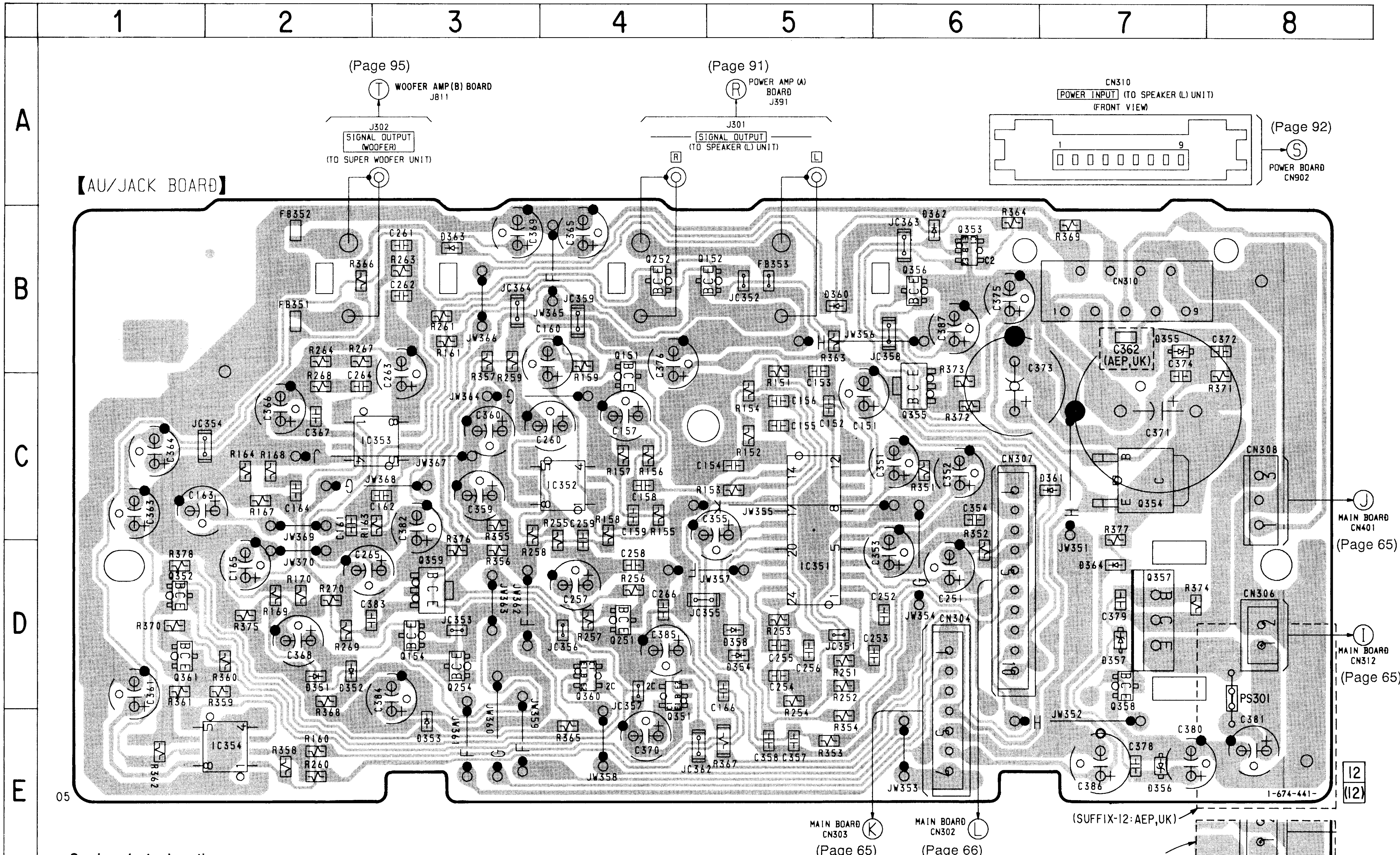
6-16. SCHEMATIC DIAGRAM – MAIN (FUNCTION SELECT) Section –

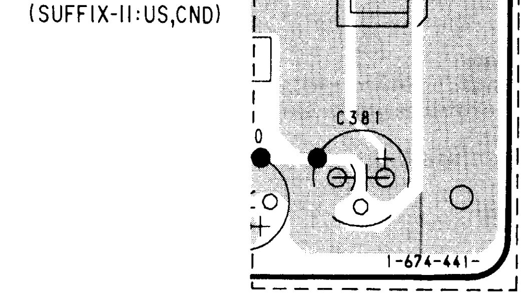


Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- ▬ : B+ Line.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM/LINE IN
  ( ) : CD PLAY
  [ ] : MD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ⇨ : CD
  ⇨ : MD PLAY
  ➡ : MD REC
- Abbreviation
  CND : Canadian model

6-17. PRINTED WIRING BOARD – AUDIO/JACK Section – • See page 47 for Circuit Boards Location.





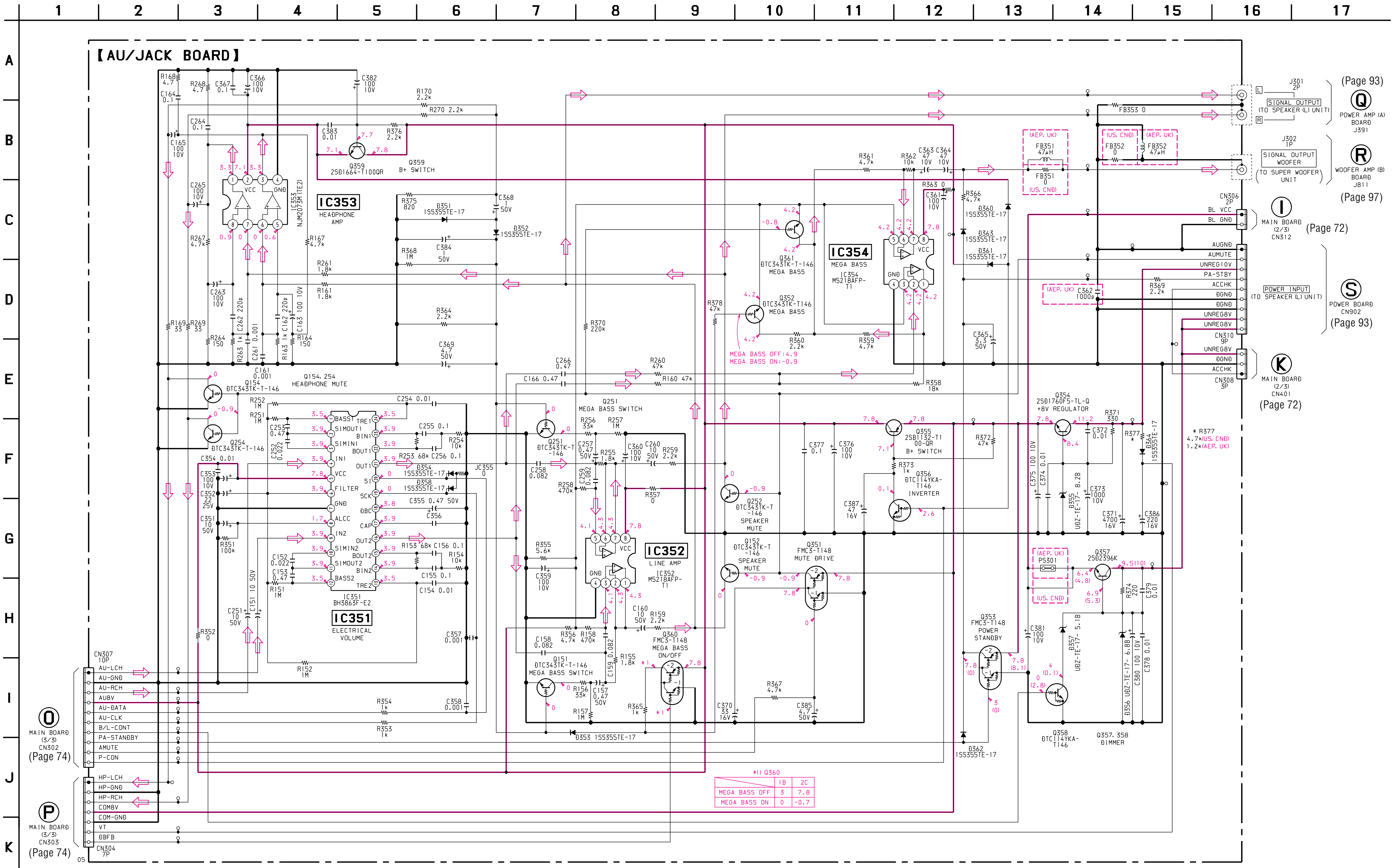
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D351	D-2	IC351	C-5	Q352	D-1
D352	D-2	IC352	C-4	Q353	B-6
D354	D-5	IC353	C-3	Q354	C-7
D353	E-3	IC354	E-2	Q355	C-6
D355	B-7			Q356	B-6
D356	E-7	Q151	C-4	Q357	D-7
D357	D-7	Q152	B-5	Q358	D-7
D360	B-5	Q154	D-3	Q359	D-3
D361	C-7	Q251	D-4	Q360	D-4
D362	B-6	Q252	B-4	Q361	D-1
D363	B-3	Q254	D-3		
D364	D-7	Q351	D-4		

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ░░░ : Pattern from the side which enables seeing.
- Abbreviation
  CND : Canadian model

6-18. SCHEMATIC DIAGRAM – AUDIO/JACK Section – • See page 107 for IC Block Diagram.



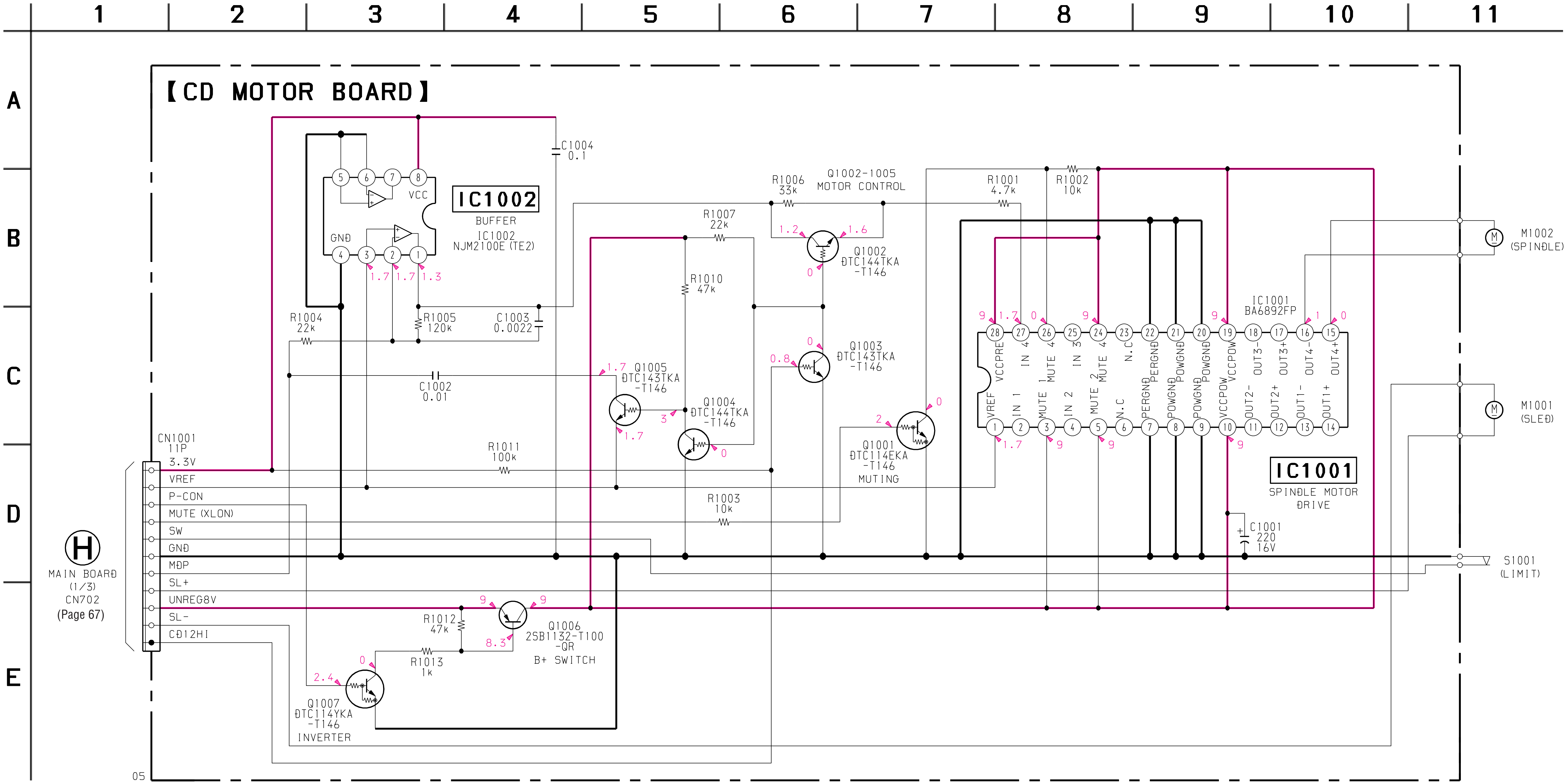
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- ▭ : panel designation.
- ▬ : B+ Line.
- Voltages are dc with respect to ground under no-signal conditions.

no mark : POWER ON
( ) : STANDBY

- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
- Abbreviation
  CND : Canadian model

6-19. SCHEMATIC DIAGRAM – CD MOTOR Section – • See page 107 for IC Block Diagram.

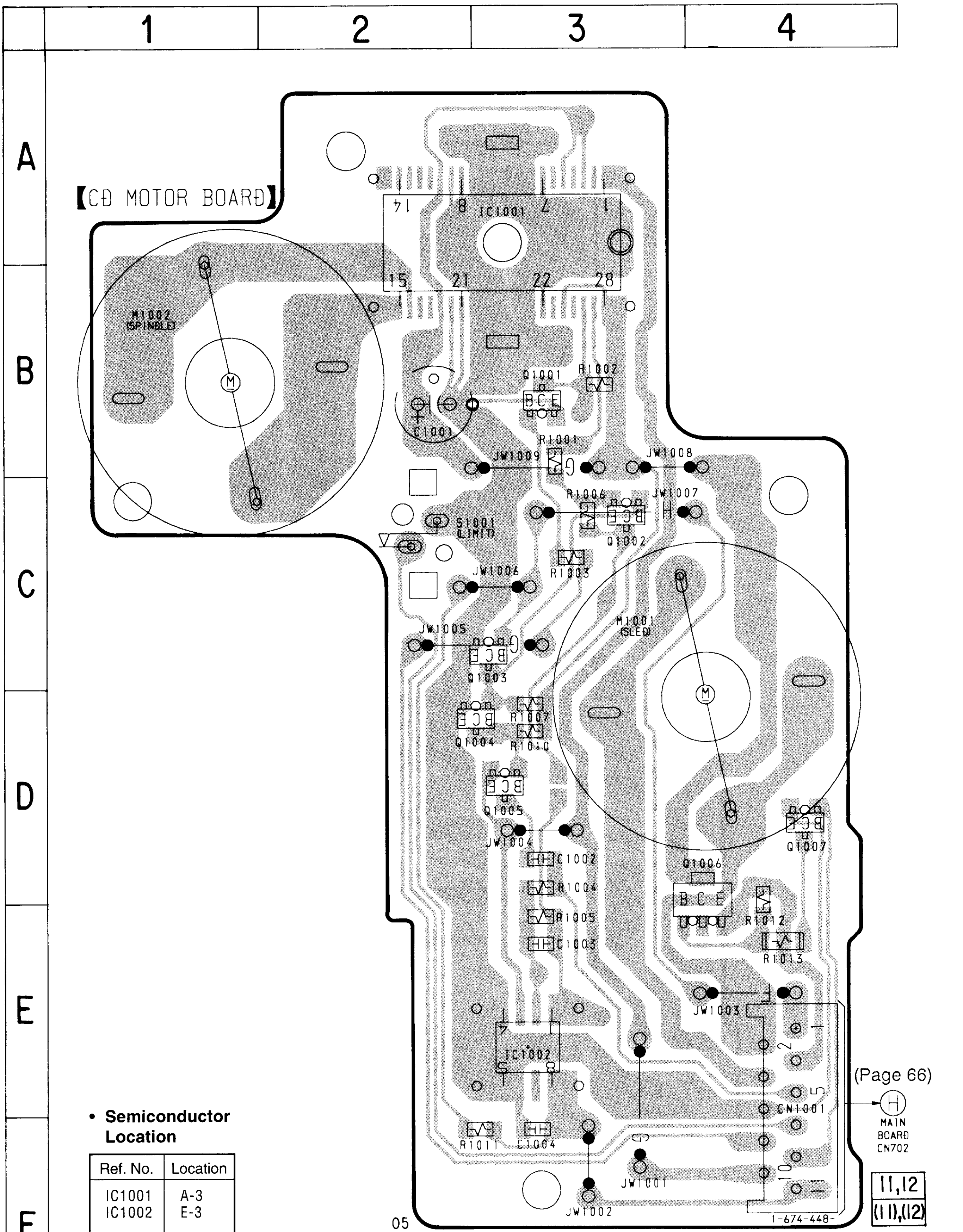


Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▬▬ : B+ Line.
- Voltages are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

6-20. PRINTED WIRING BOARD – CD MOTOR Section –

• See page 47 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location
IC1001	A-3
IC1002	E-3
Q1001	B-3
Q1002	C-3
Q1003	C-3
Q1004	D-3
Q1005	D-3
Q1006	E-4
Q1007	D-4

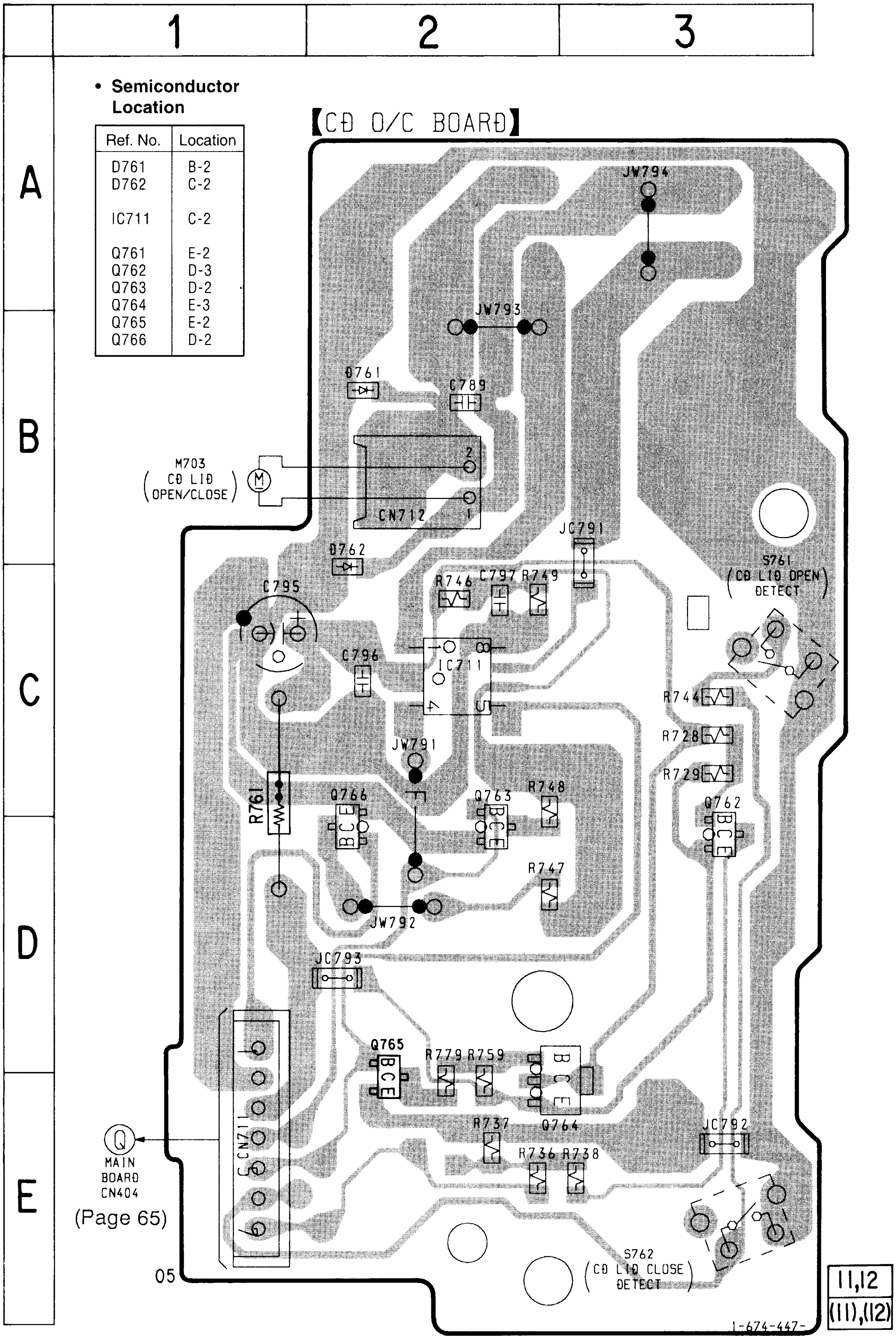
Note on Printed Wiring Board:
- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ░░░ : Pattern from the side which enables seeing.

6-21. PRINTED WIRING BOARD – CD OPEN/CLOSE Section –

• See page 47 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D761	B-2
D762	C-2
IC711	C-2
Q761	E-2
Q762	D-3
Q763	D-2
Q764	E-3
Q765	E-2
Q766	D-2

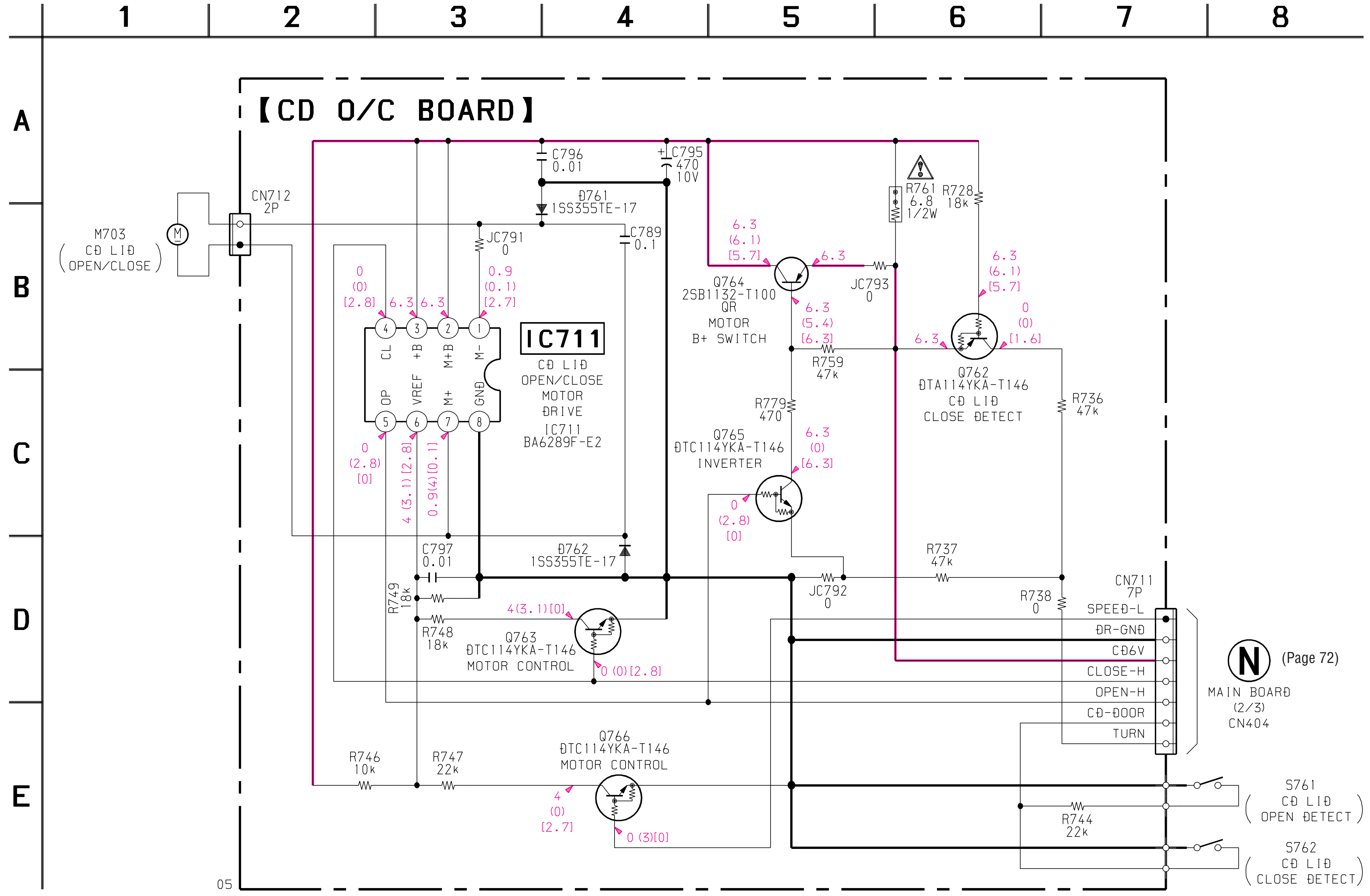


Note on Printed Wiring Board:

- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ░░ : Pattern from the side which enables seeing.

6-22. SCHEMATIC DIAGRAM – CD OPEN/CLOSE Section –

• See page 107 for IC Block Diagram.



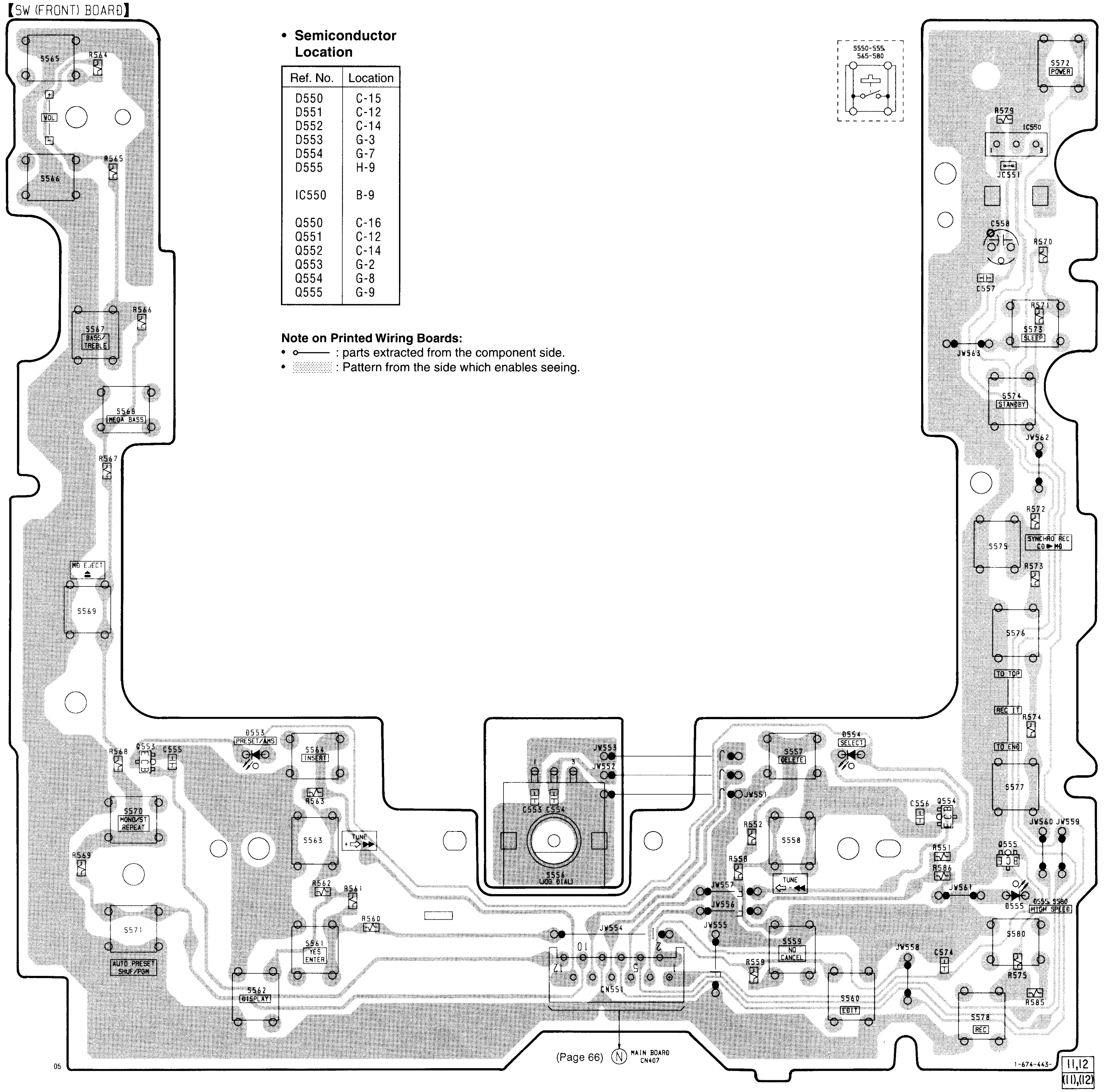
Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- —⊠— : fusible resistor.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B+ Line.
- Voltages are dc with respect to ground under no-signal conditions.
  no mark : CD LID CLOSE
  ( ) : DURING CD LID OPEN
  [ ] : DURING CD LID CLOSE
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

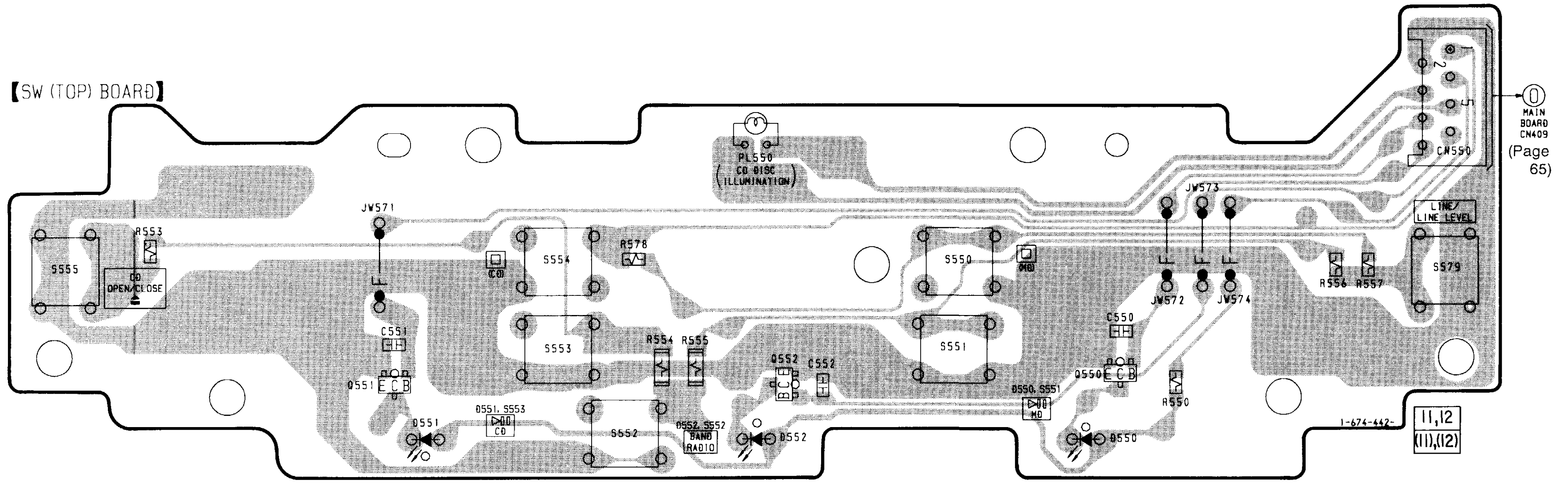
6-23. PRINTED WIRING BOARDS – PANEL Section – • See page 47 for Circuit Boards Location.

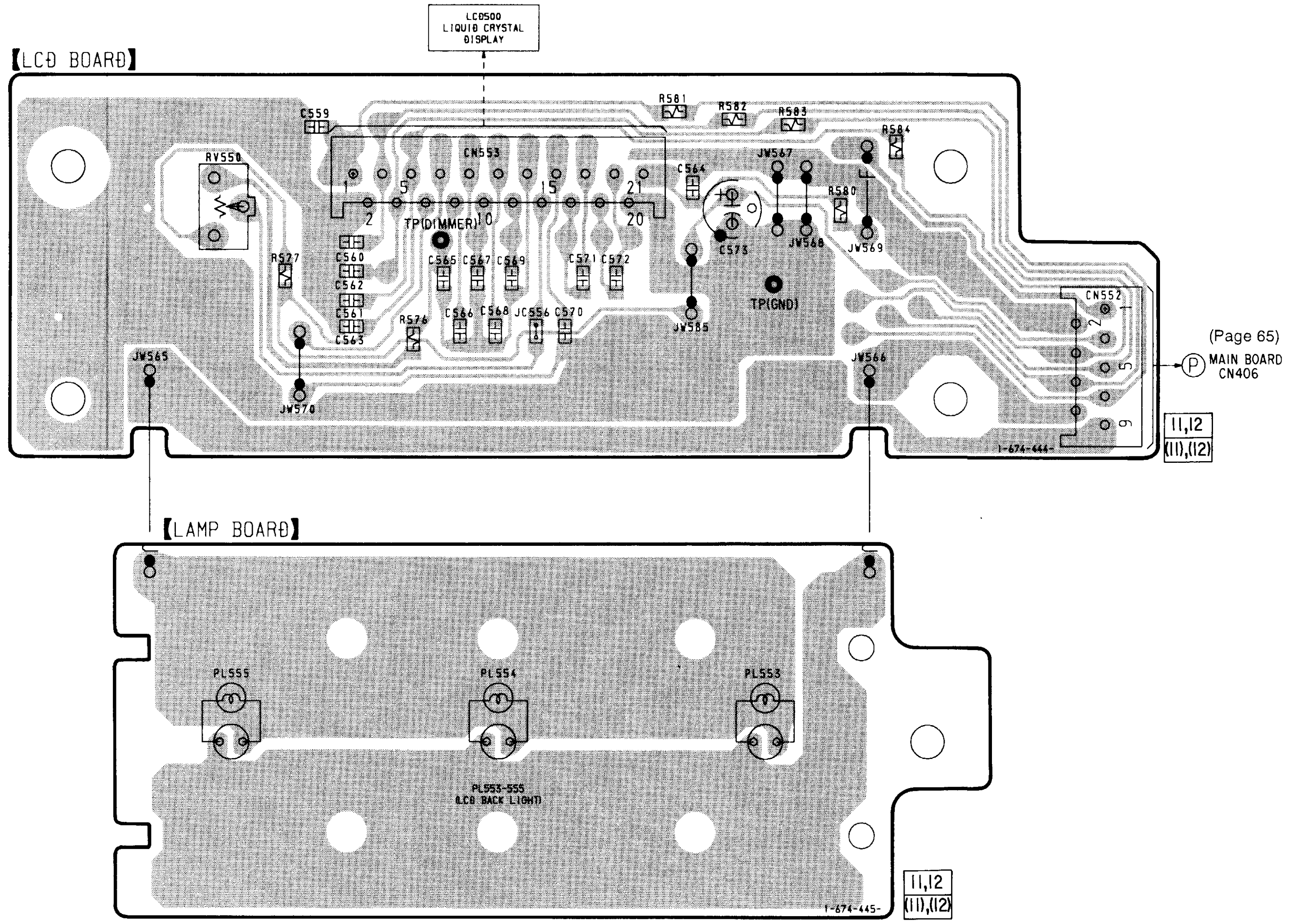


• **Semiconductor Location**

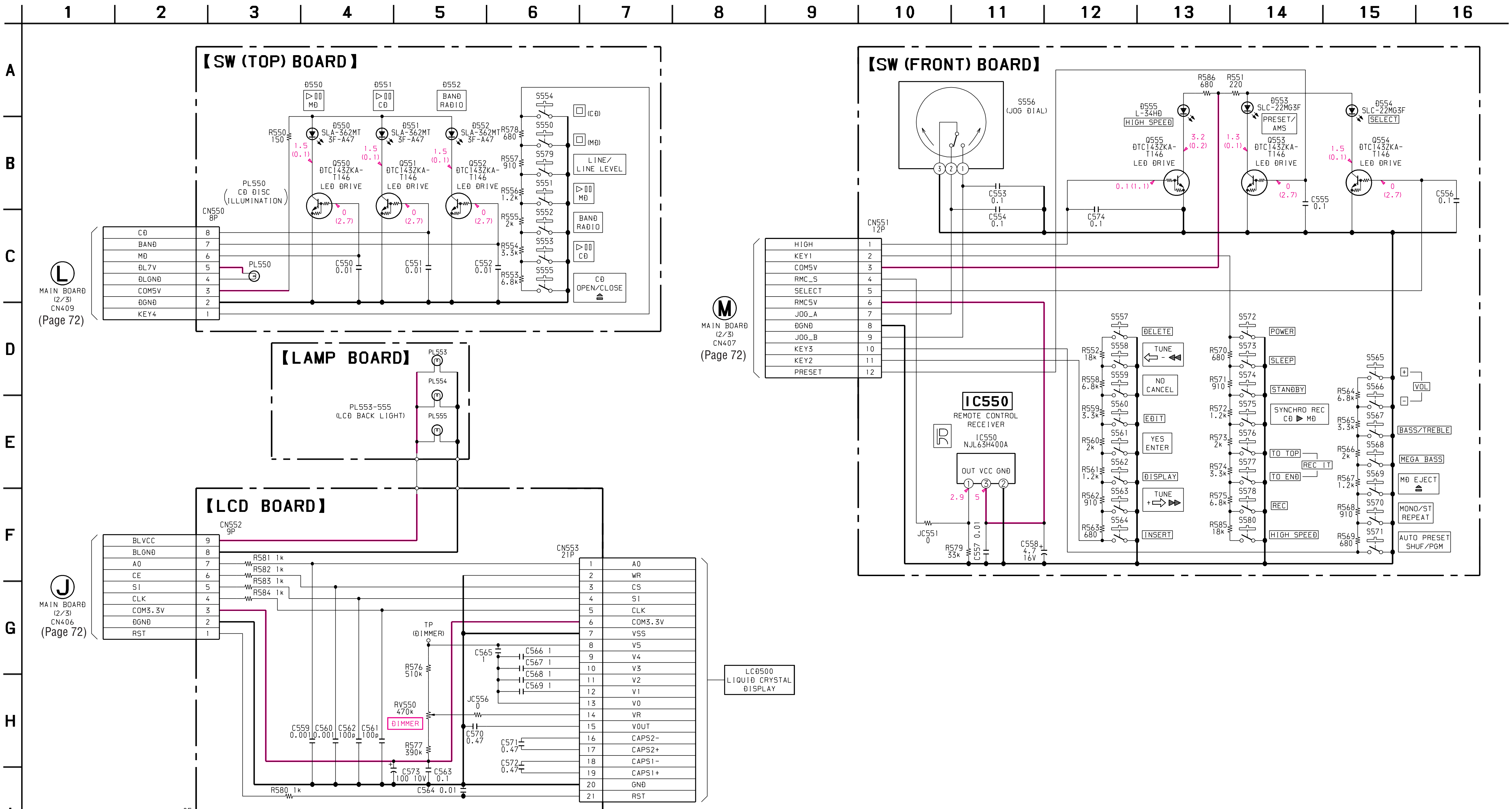
Ref. No.	Location
D550	C-15
D551	C-12
D552	C-14
D553	G-3
D554	G-7
D555	H-9
IC550	B-9
Q550	C-16
Q551	C-12
Q552	C-14
Q553	G-2
Q554	G-8
Q555	G-9

Note on Printed Wiring Boards:
- o——— : parts extracted from the component side.
- ░░░ : Pattern from the side which enables seeing.





6-24. SCHEMATIC DIAGRAM – PANEL Section –

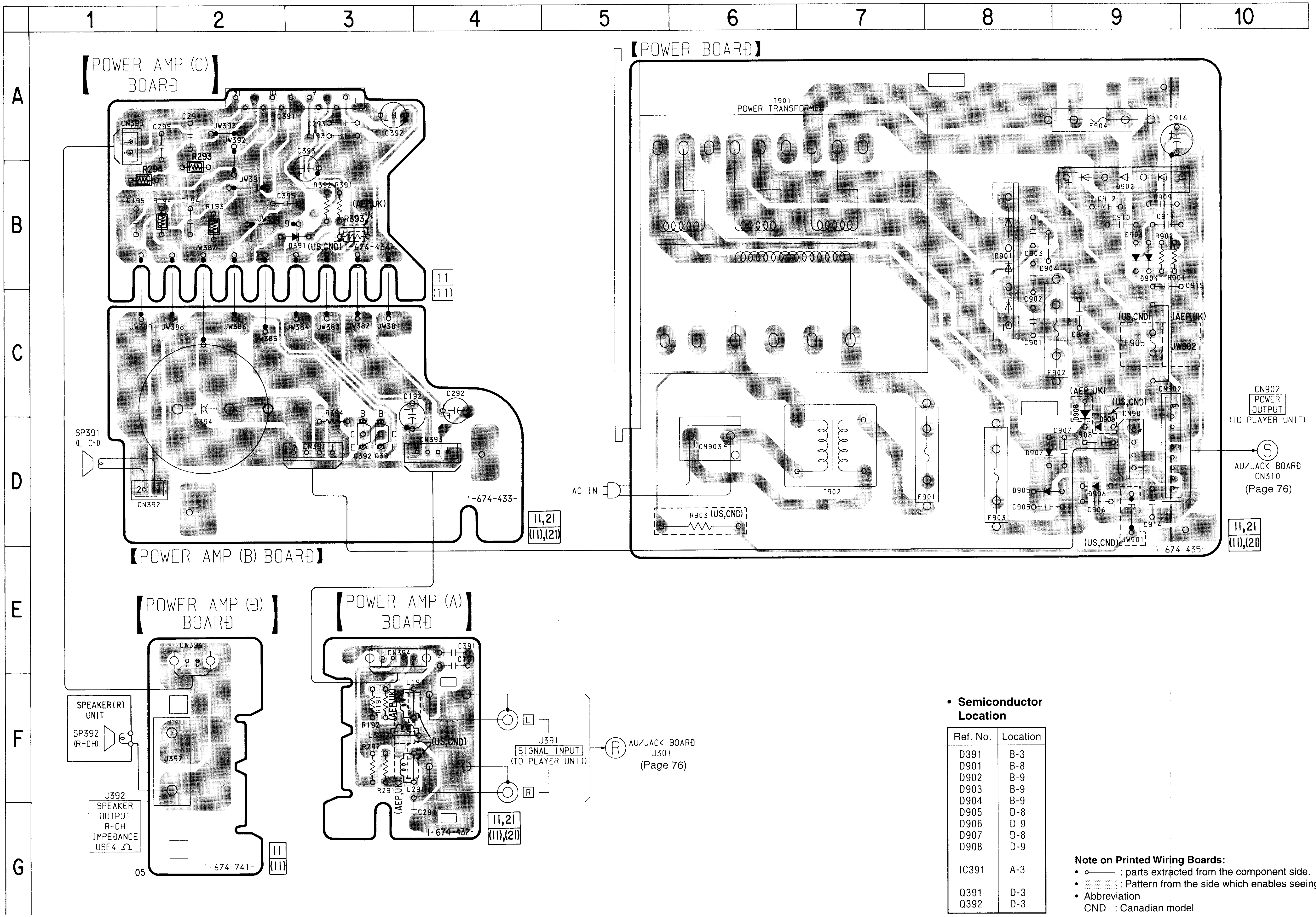


Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- ▬ : B+ Line.
- ▭ : adjustment for repair.
- Voltages are dc with respect to ground under no-signal conditions.
  no mark : LED OFF
  ( ) : LED ON
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

6-25. PRINTED WIRING BOARDS – POWER AMP/POWER Section –

• See page 47 for Circuit Boards Location.

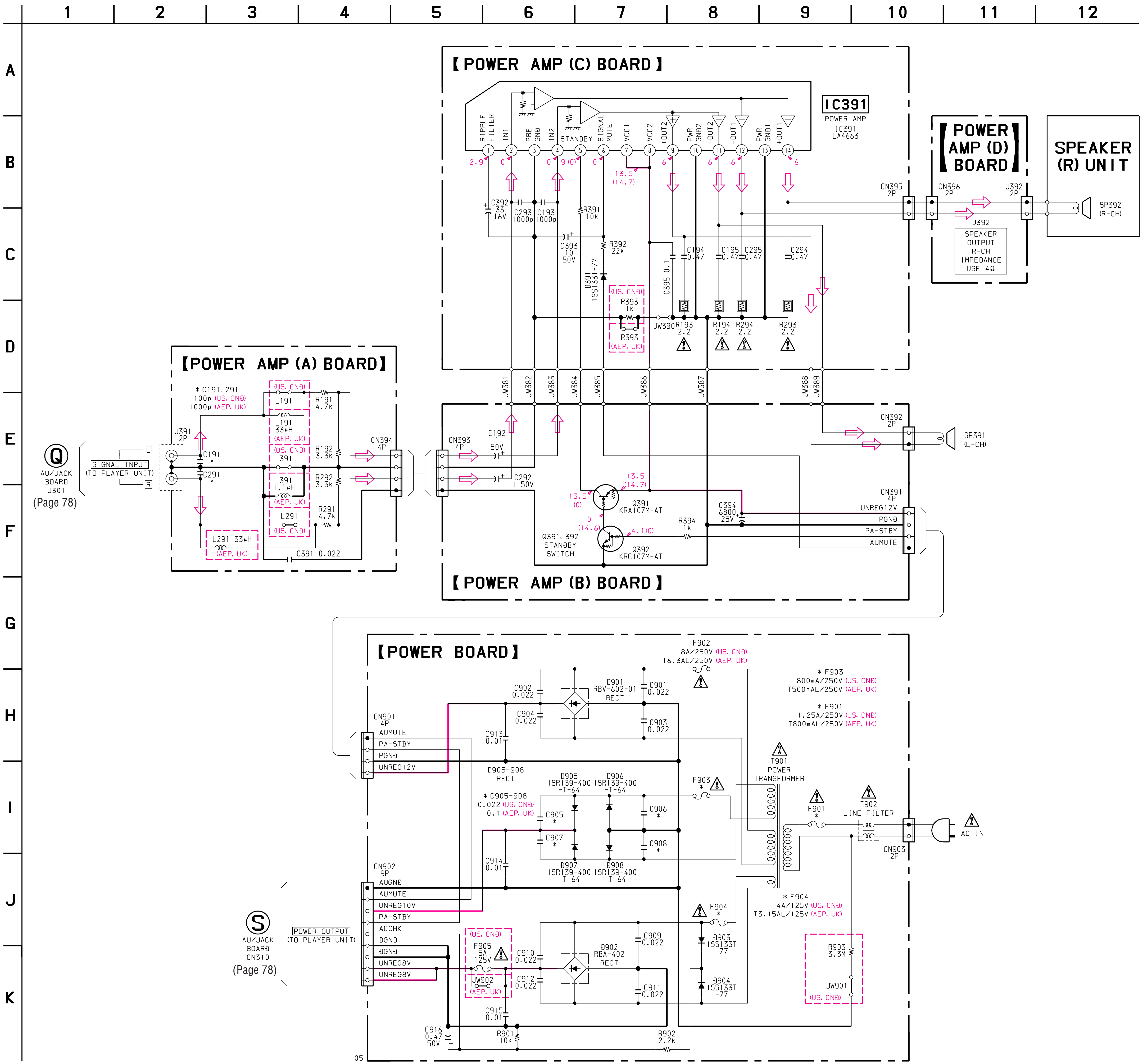


• **Semiconductor Location**

Ref. No.	Location
D391	B-3
D901	B-8
D902	B-9
D903	B-9
D904	B-9
D905	D-8
D906	D-9
D907	D-8
D908	D-9
IC391	A-3
Q391	D-3
Q392	D-3

Note on Printed Wiring Boards:
- o——— : parts extracted from the component side.
- ░░░ : Pattern from the side which enables seeing.
- Abbreviation
  CND : Canadian model

6-26. SCHEMATIC DIAGRAM – POWER AMP/POWER Section –

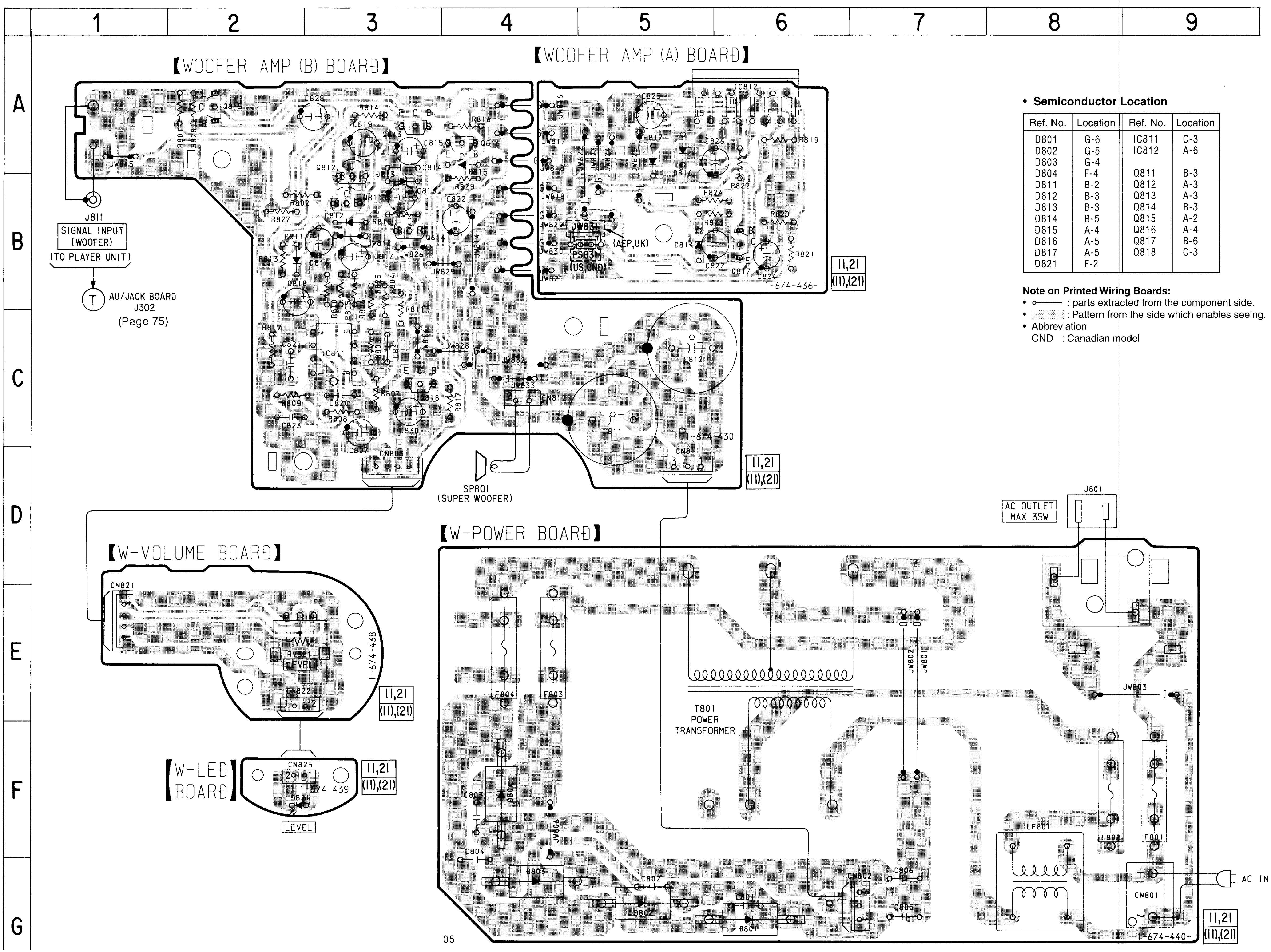


Note on Schematic Diagram:
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- (resistor symbol) : nonflammable resistor.
- (box symbol) : panel designation.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- (thick line) : B+ Line.
- Voltages are dc with respect to ground under no-signal conditions.
  no mark : POWER ON
  ( ) : STANDBY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
- Abbreviation
  CND : Canadian model

6-27. PRINTED WIRING BOARDS – SUPER WOOFER Section – • See page 48 for Circuit Boards Location.

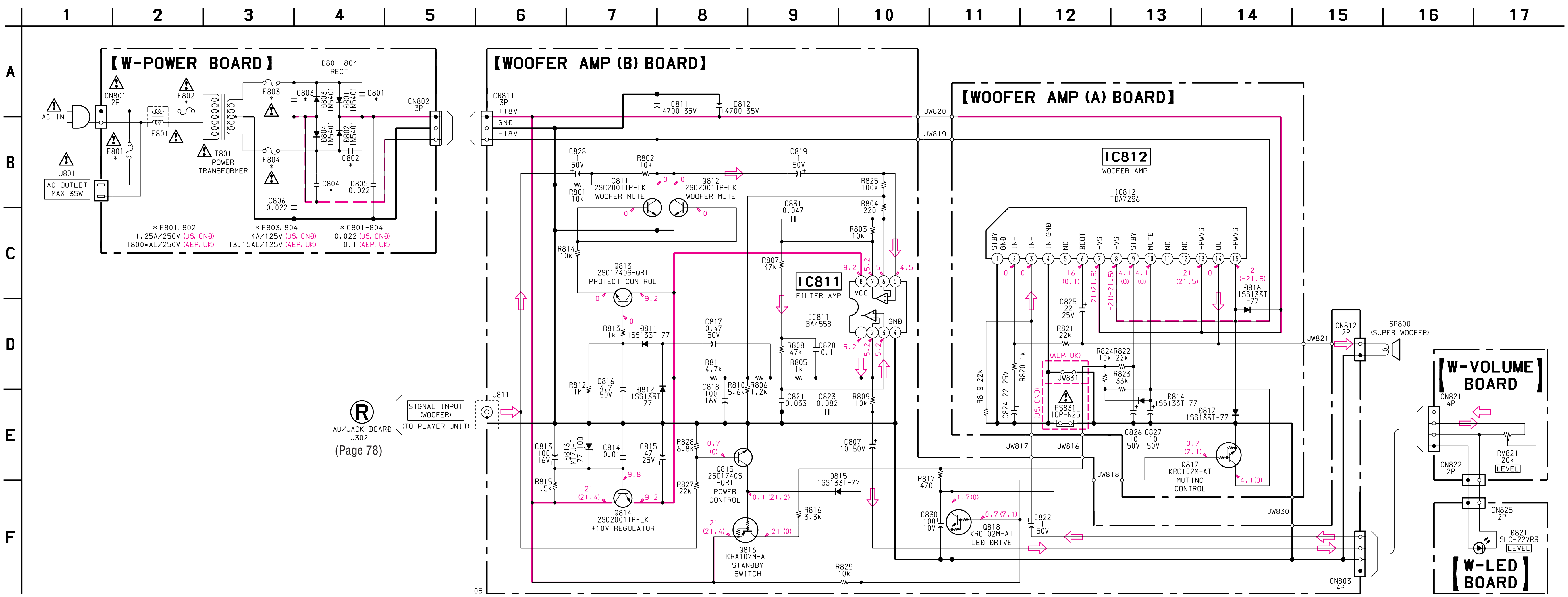


• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D801	G-6	IC811	C-3
D802	G-5	IC812	A-6
D803	G-4		
D804	F-4	Q811	B-3
D811	B-2	Q812	A-3
D812	B-3	Q813	A-3
D813	B-3	Q814	B-3
D814	B-5	Q815	A-2
D815	A-4	Q816	A-4
D816	A-5	Q817	B-6
D817	A-5	Q818	C-3
D821	F-2		

Note on Printed Wiring Boards:
- o——— : parts extracted from the component side.
- ░░░ : Pattern from the side which enables seeing.
- Abbreviation
  CND : Canadian model

6-28. SCHEMATIC DIAGRAM – SUPER WOOFER Section – • See page 107 for IC Block Diagram.



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.

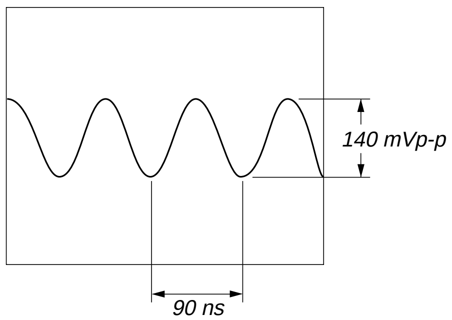
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- Voltages are dc with respect to ground under no-signal conditions.
  no mark : SIGNAL IN (POWER ON)
  ( ) : STANDBY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
- Abbreviation
  CND : Canadian model

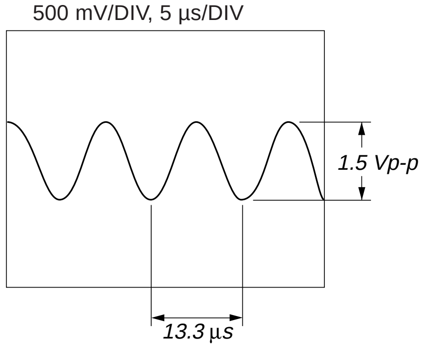
- **Waveforms**

– TU BOARD –

❶ IC1 ⑩ (QUAD)
50 mV/DIV, 50 ns/DIV

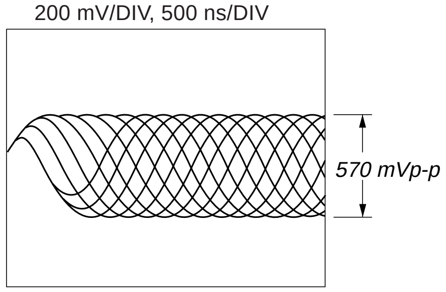


❷ IC2 ⑲ (X IN)
500 mV/DIV, 5 μs/DIV

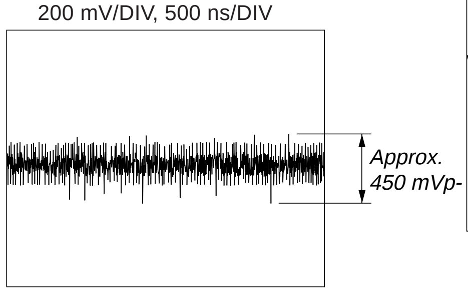


– BD BOARD –

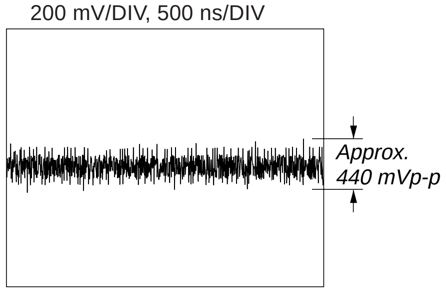
❶ IC101 ①, ② (I, J) (MD Play Mode)
200 mV/DIV, 500 ns/DIV



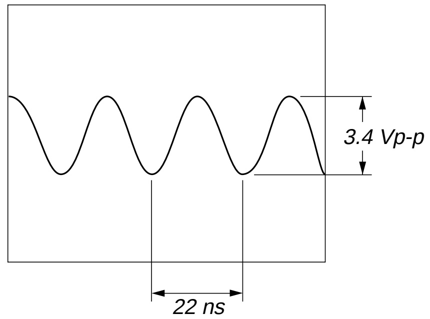
❷ IC101 ④ (A) (MD Play Mode)
200 mV/DIV, 500 ns/DIV



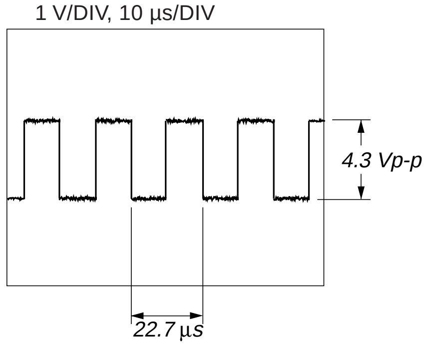
❸ IC101 ⑧, ⑨ (E, F) (MD Play Mode)
200 mV/DIV, 500 ns/DIV



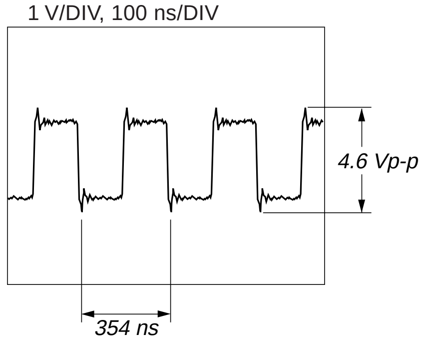
❹ IC121 ⑯ (OSCI)
1 V/DIV, 10 ns/DIV



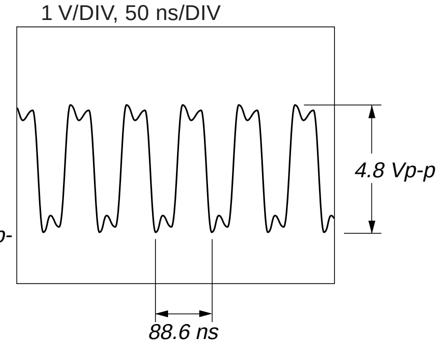
❺ IC121 ㉗ (LRCK) (MD Play Mode)
1 V/DIV, 10 μs/DIV



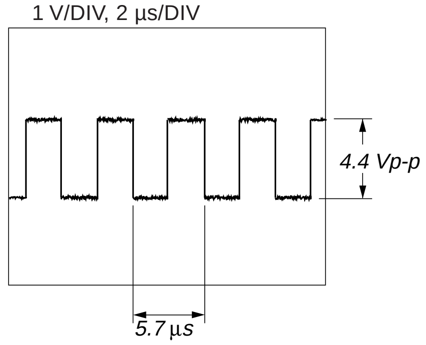
❻ C121 ㉘ (XBCK) (MD Play Mode)
1 V/DIV, 100 ns/DIV



❼ IC121 ㉙ (FS256) (MD Play Mode)
1 V/DIV, 50 ns/DIV

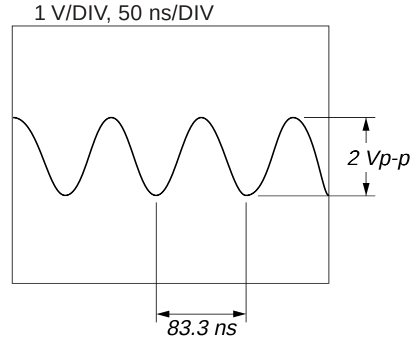


❽ IC121 ㊿ (FS4) (MD Play Mode)
1 V/DIV, 2 μs/DIV

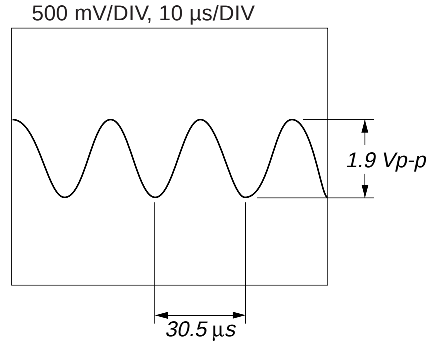


– DG BOARD –

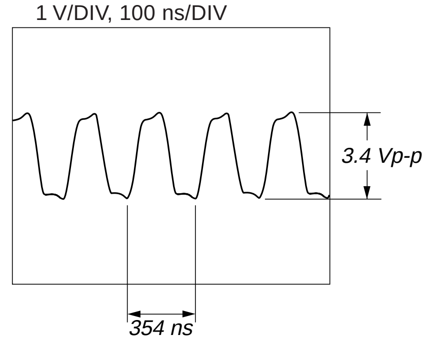
❶ IC601 ㉘ (XIN)
1 V/DIV, 50 ns/DIV



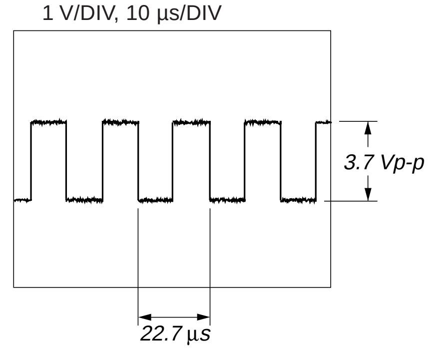
❷ IC601 ㉕ (XIN-T)
500 mV/DIV, 10 μs/DIV



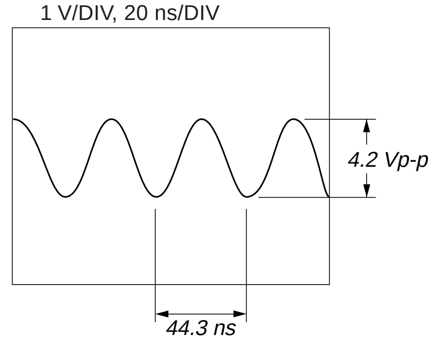
❸ IC603 ⑪ (BCK) (MD Play Mode)
1 V/DIV, 100 ns/DIV



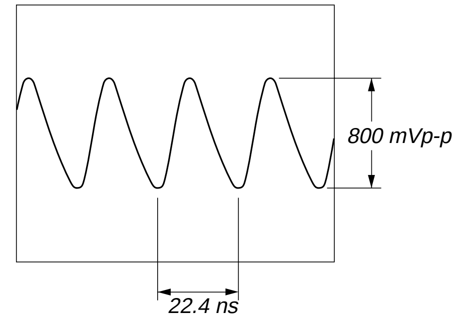
❹ IC603 ⑩ (LRCK) (MD Play Mode)
1 V/DIV, 10 μs/DIV



❺ IC603 ⑨ (SYSCK)
1 V/DIV, 20 ns/DIV

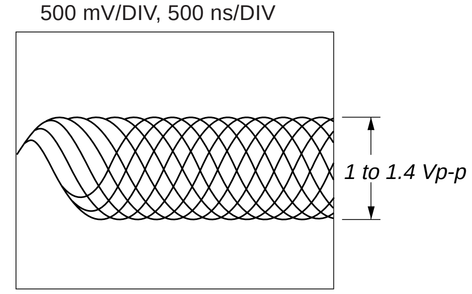


❻ IC605 ⑥
200 mV/DIV, 10 ns/DIV

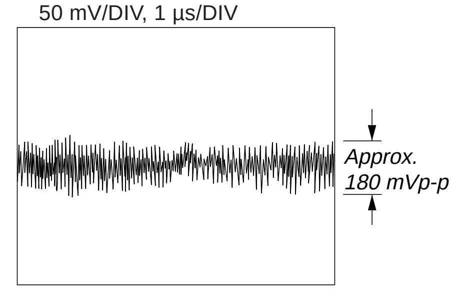


– MAIN BOARD (CD Section) –

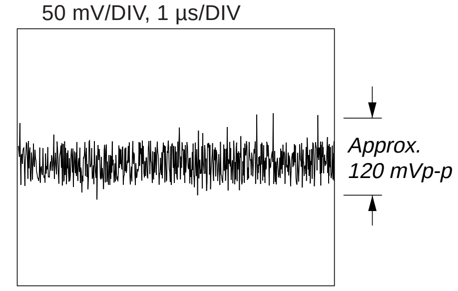
❶ IC701 ㉛ (RF O) (CD Play Mode)
500 mV/DIV, 500 ns/DIV



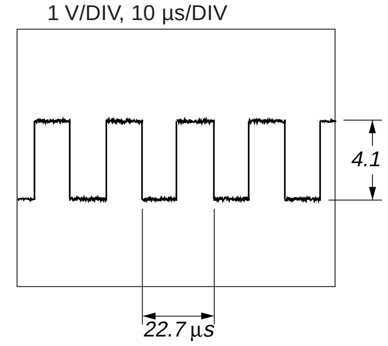
❷ IC701 ㊶ (TEO) (CD Play Mode)
50 mV/DIV, 1 μs/DIV



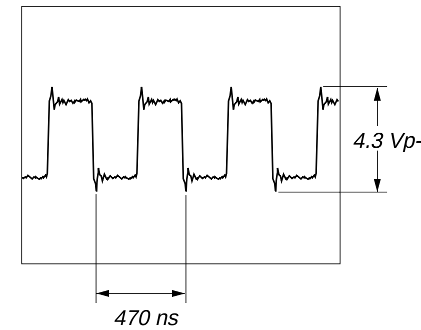
❸ IC701 ㊽ (FEO) (CD Play Mode)
50 mV/DIV, 1 μs/DIV



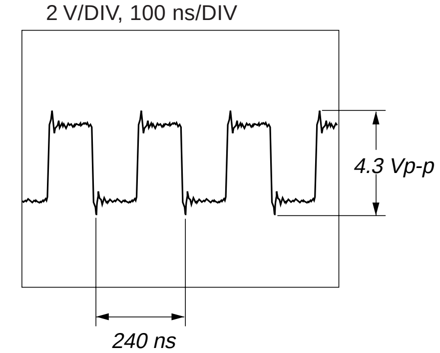
❹ IC702 ㊴ (LRCK) (CD Play Mode)
1 V/DIV, 10 μs/DIV



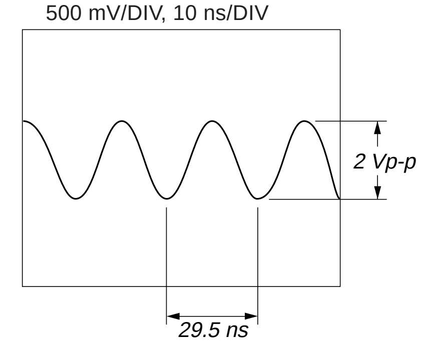
❺ IC702 ㊸ (BCK) (CD Play Mode)
1 V/DIV, 200 ns/DIV



❻ IC702 ㊽ (XPCK) (CD Play Mode)
2 V/DIV, 100 ns/DIV

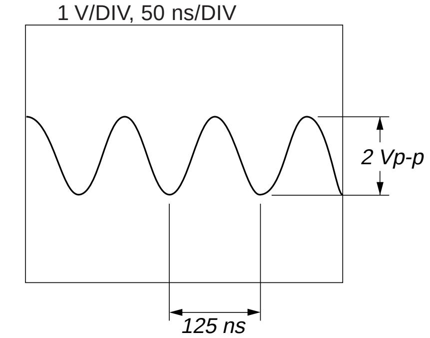


❼ IC702 ㊼ (XTAI)
500 mV/DIV, 10 ns/DIV

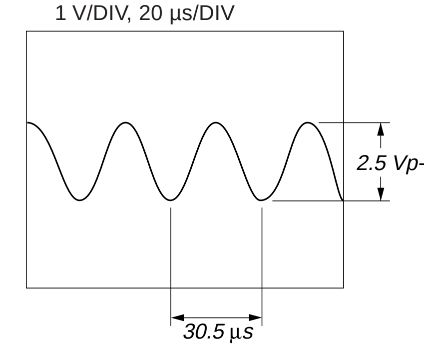


– MAIN BOARD (SYSTEM CONTROL Section) –

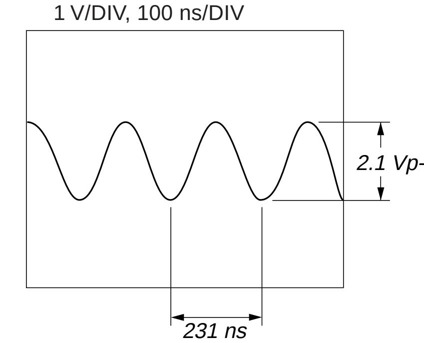
❶ IC405 ㊷ (XTAL)
1 V/DIV, 50 ns/DIV



❷ IC405 ㊲ (TX)
1 V/DIV, 20 μs/DIV

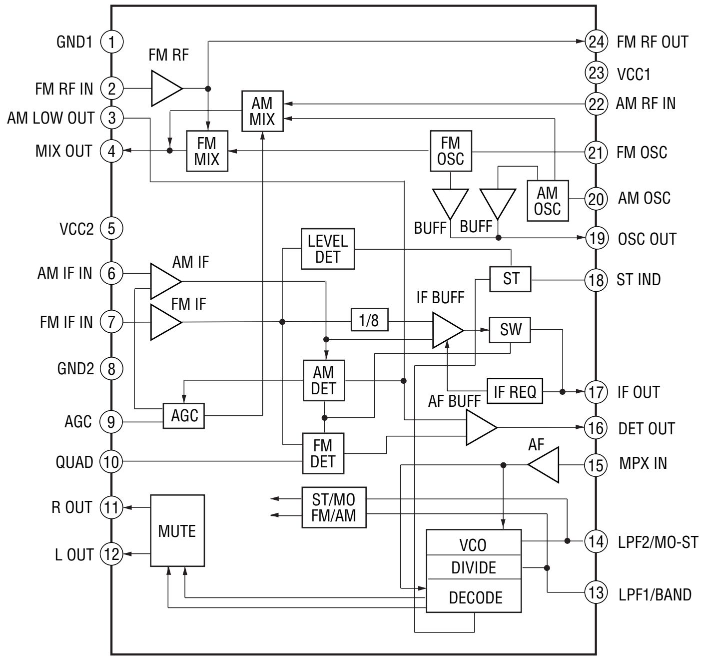


❸ IC406 ⑬ (XI) (AEP, UK)
1 V/DIV, 100 ns/DIV

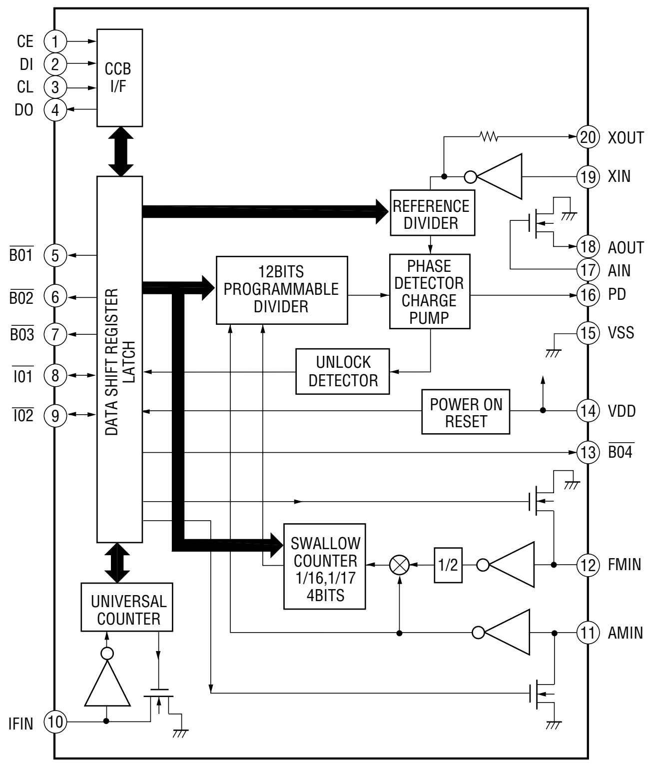


• **IC Block Diagrams**
– TU Board –

IC1 TA2104AN

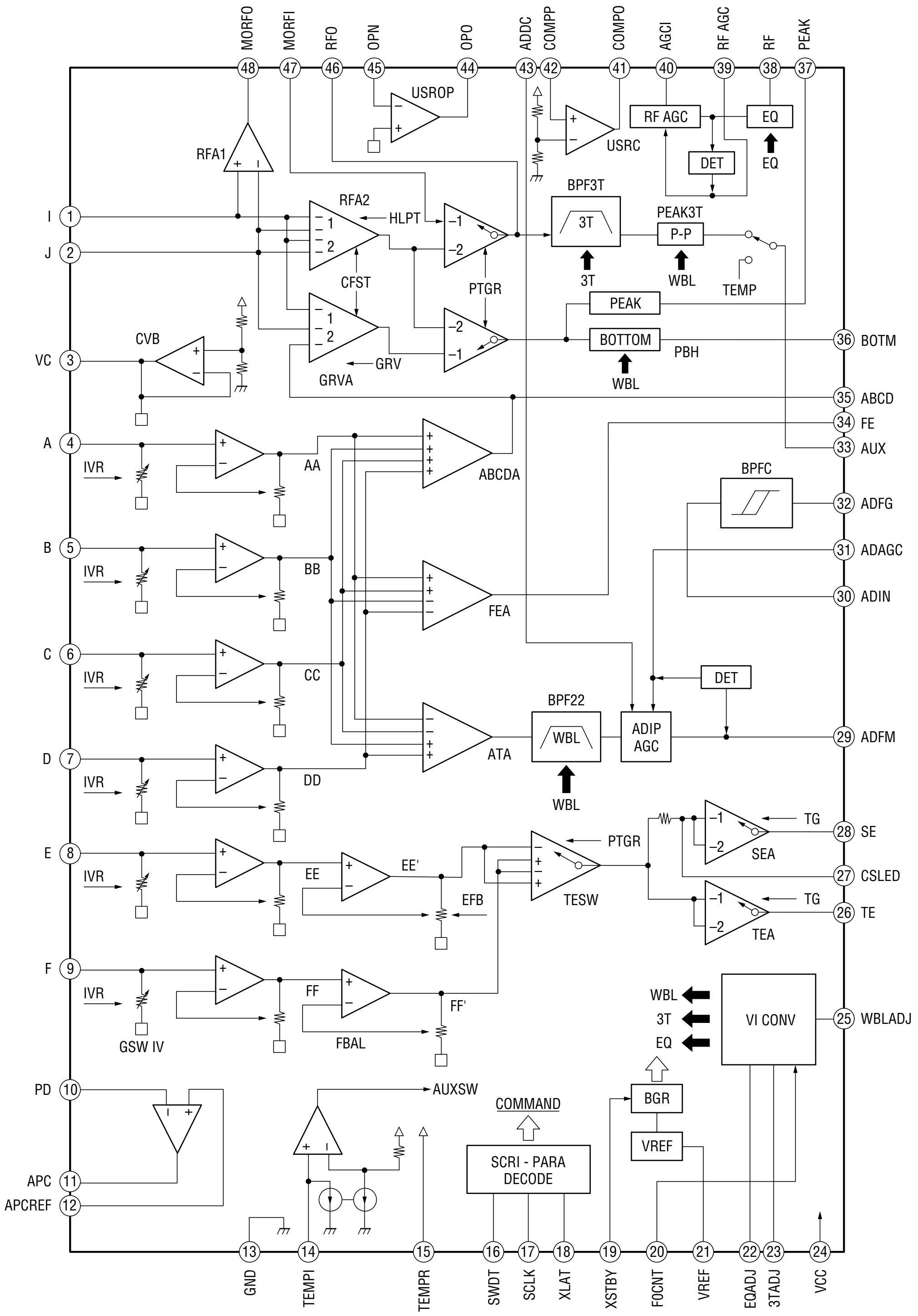


IC2 LC72137M-TLM

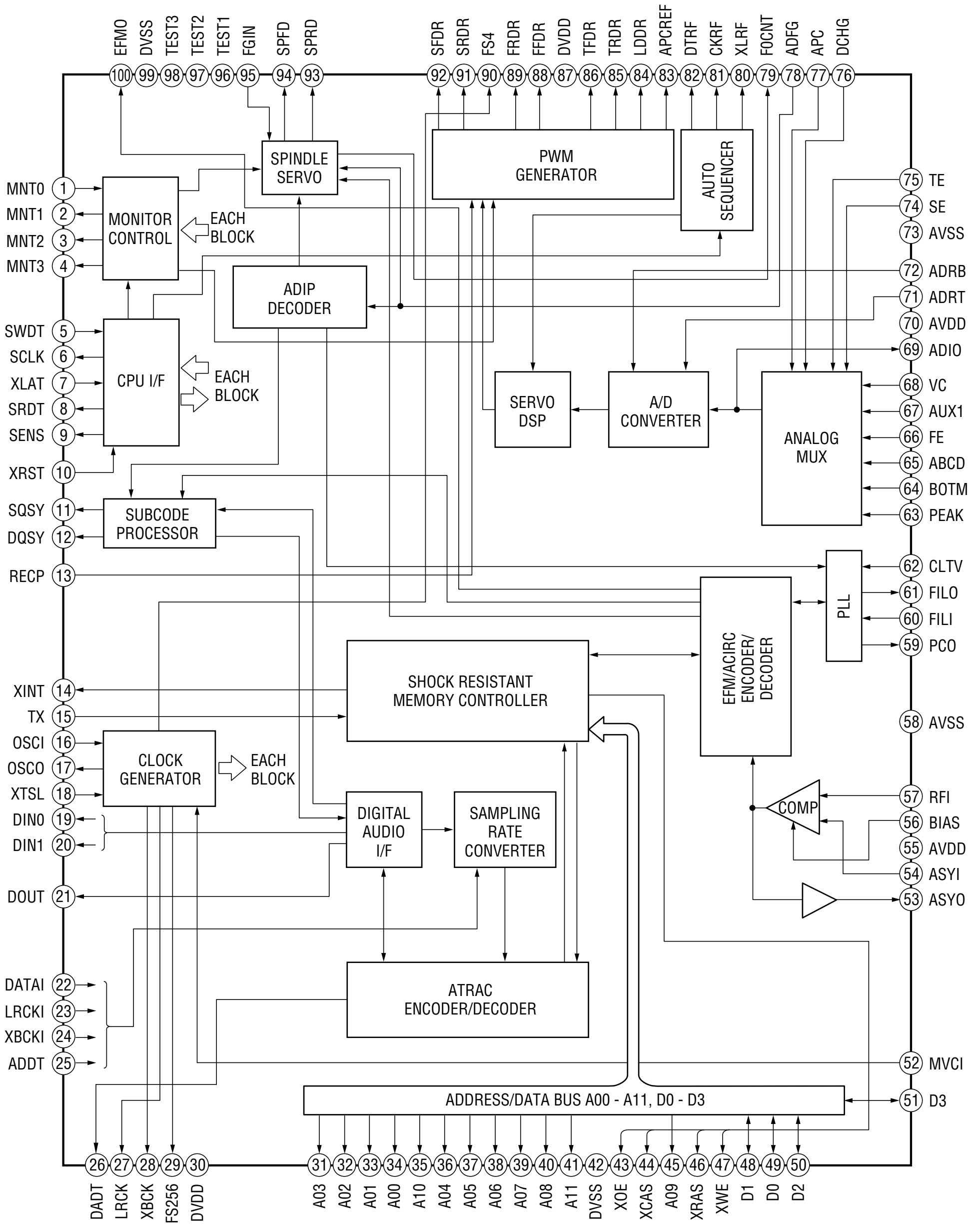


– BD Board –

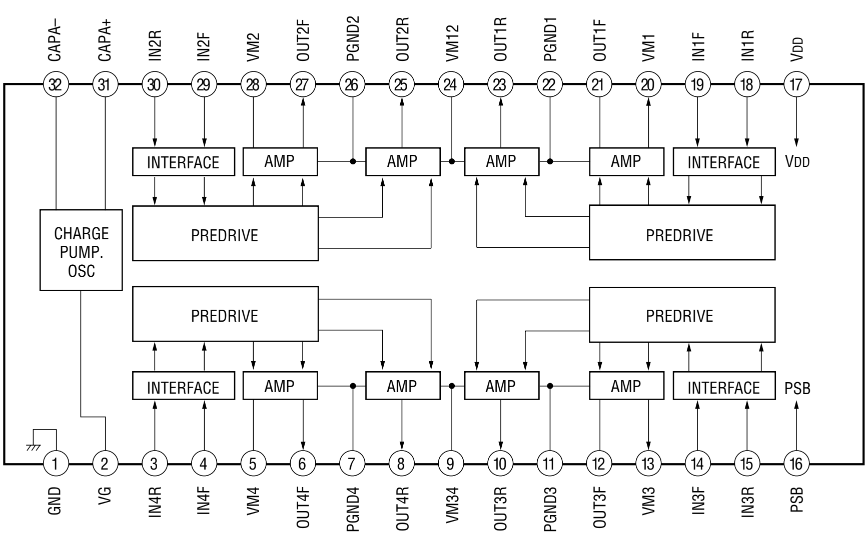
IC101 CXA2523AR



IC121 CXD2654R

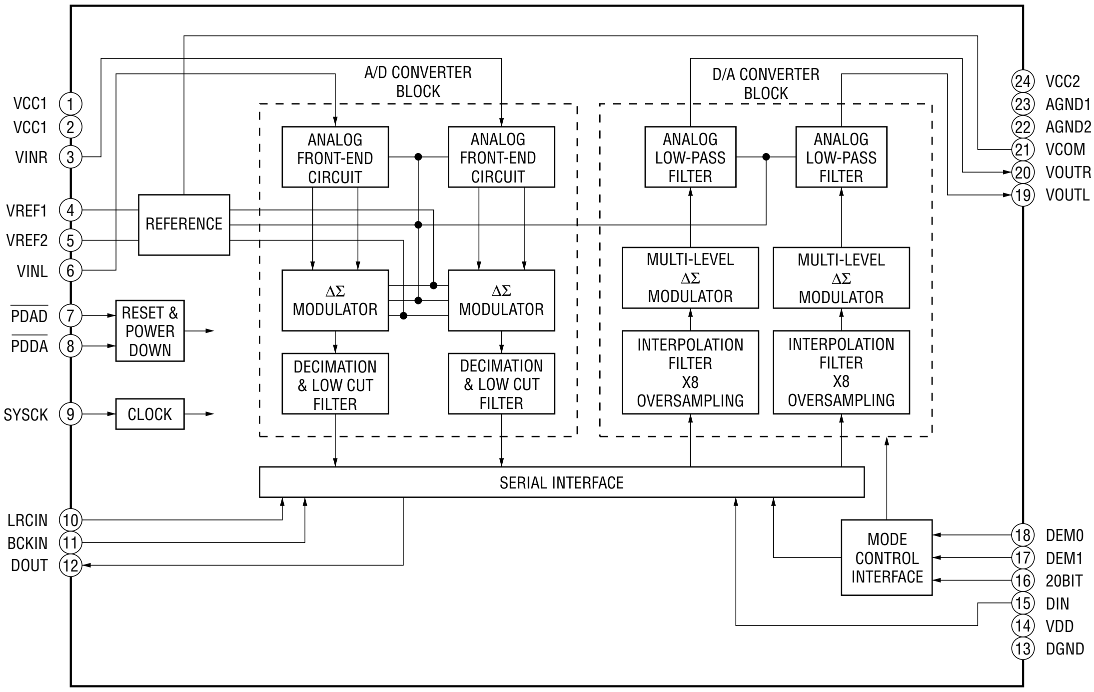


IC152 BH6511FS-E2

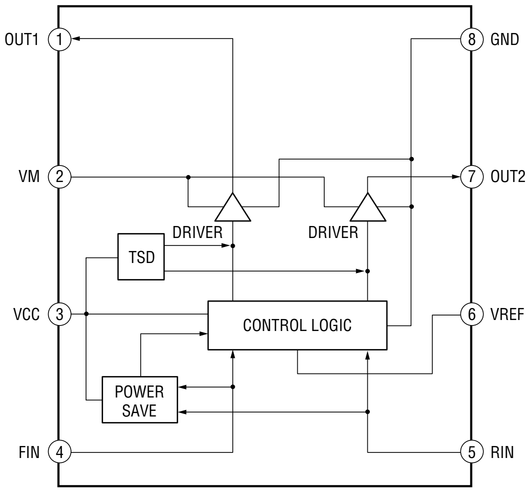


– DG Board –

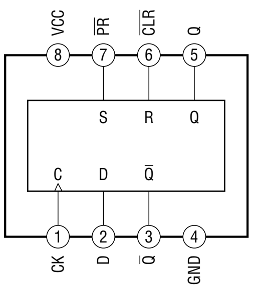
IC603 PCM3003E/T2



IC602 BA6287F

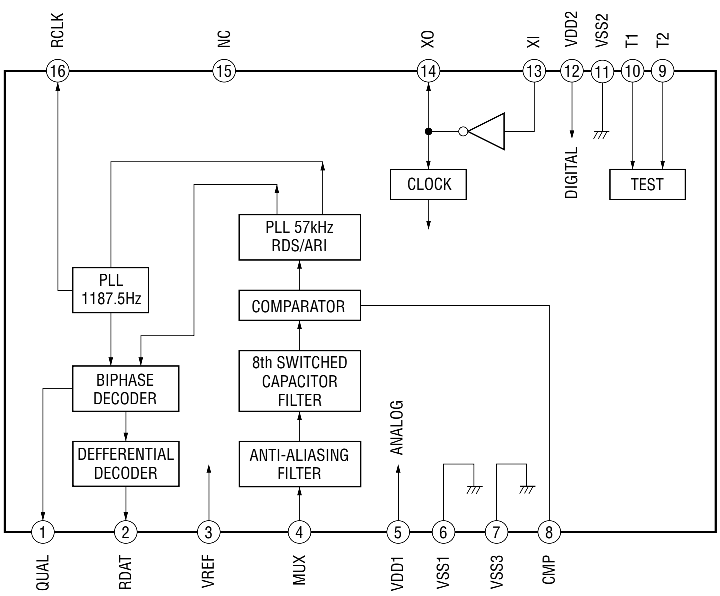


IC606 TC7WH74FU (TR12R)

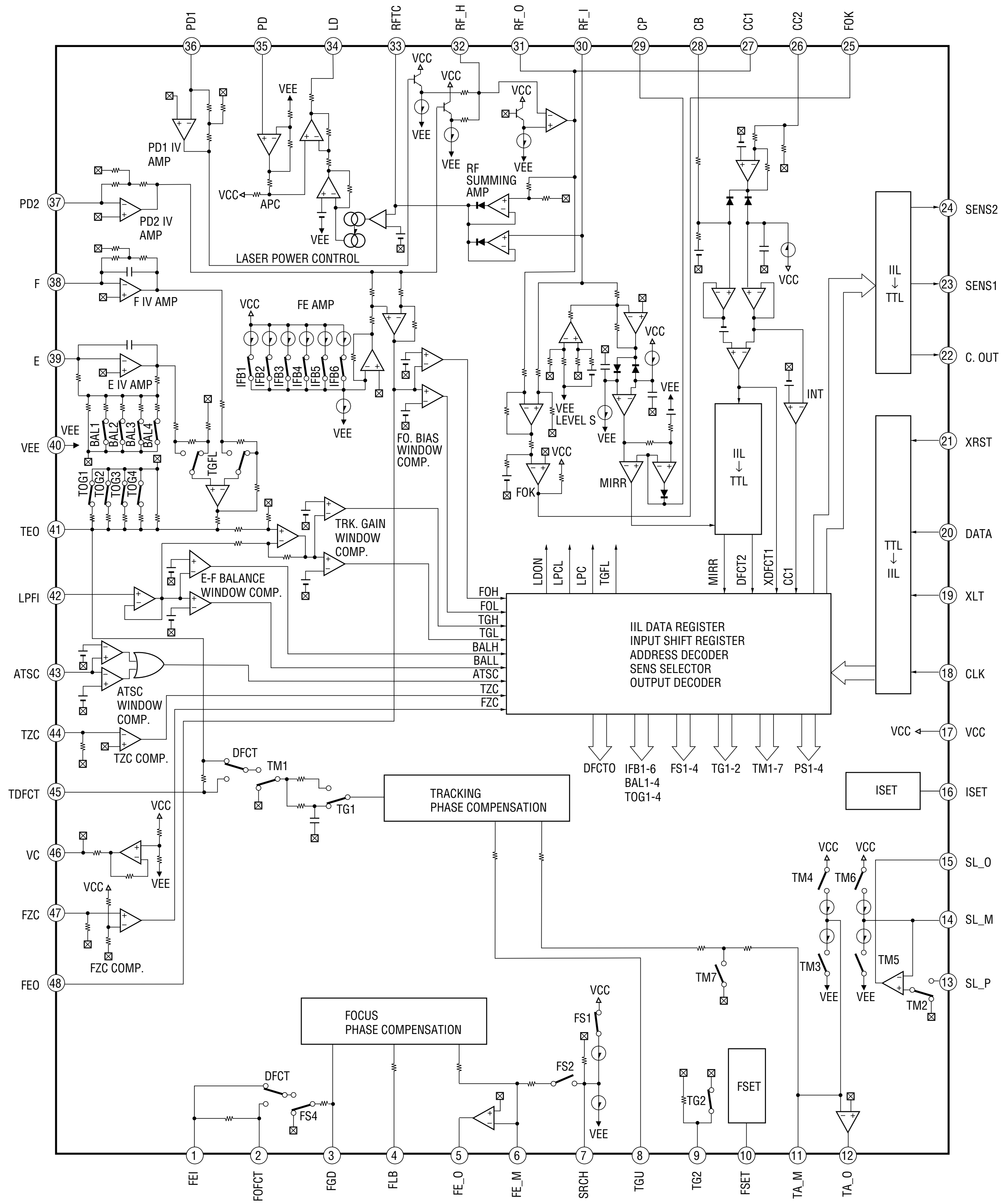


– MAIN Board –

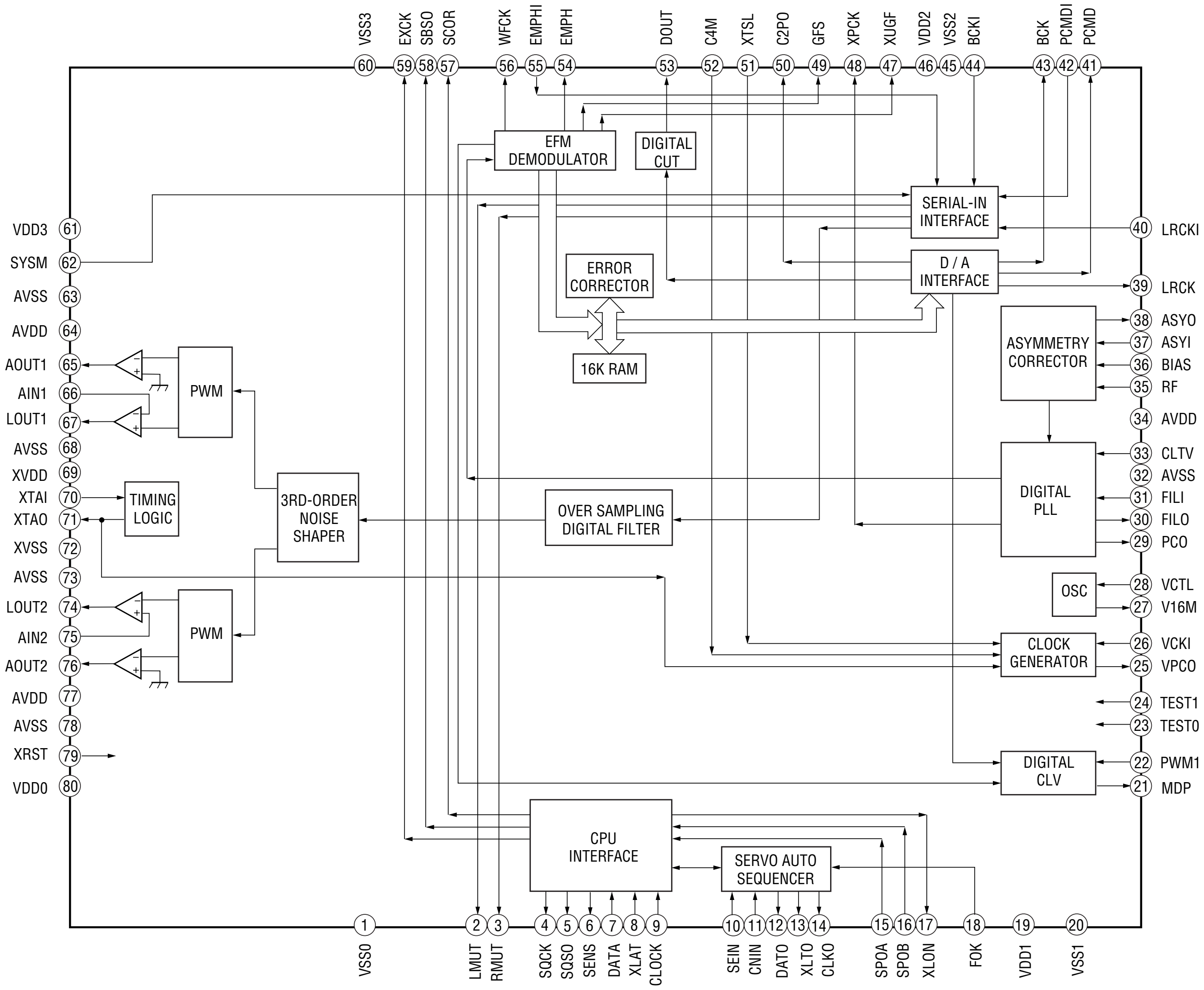
IC406 BU1924F-E2 (AEP, UK)



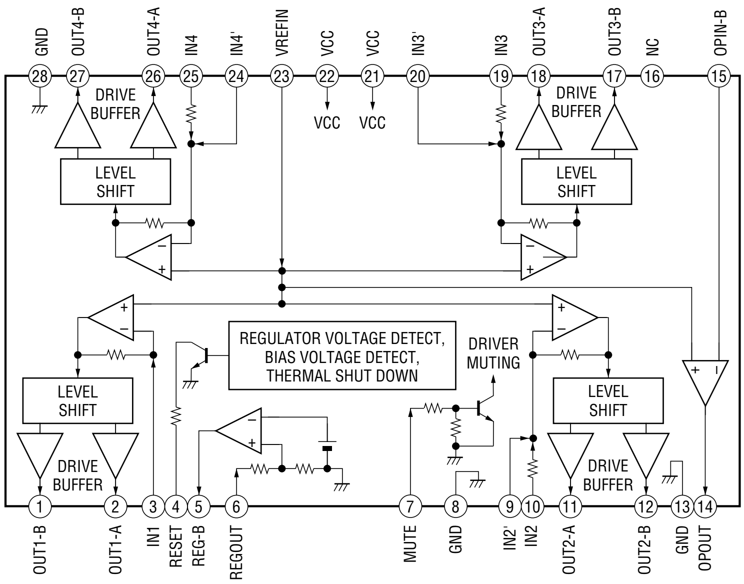
IC701 CXA2542AQ



IC702 CXD3009Q

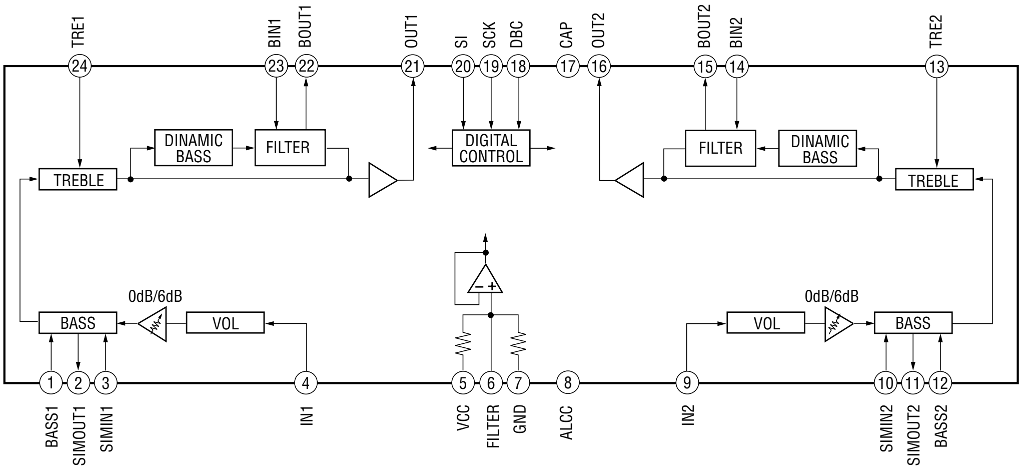


IC703 BA6998FP-E2



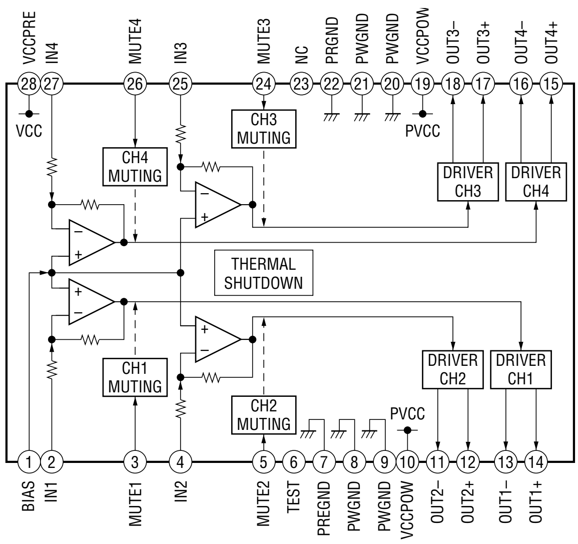
– AU/JACK Board –

IC351　BH3863F-E2



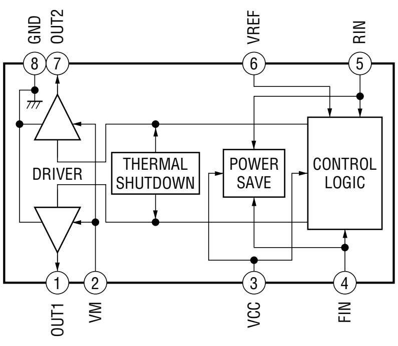
– CD MOTOR Board –

IC1001　BA6892FP-E2



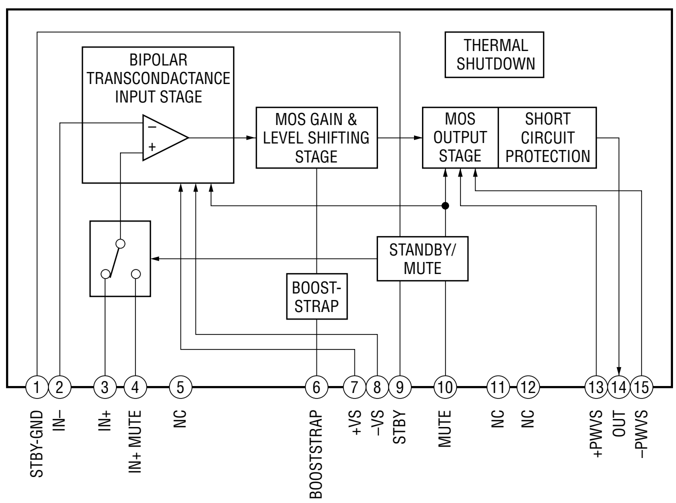
– CD O/C Board –

IC711　BA6289F-E2



– WOOFER AMP (A) Board –

IC812　TDA7296



6-29. IC PIN FUNCTION DESCRIPTION

• BD BOARD IC101 CXA2523AR (RF AMP, FOCUS/TRACKING ERROR AMP)

Pin No.	Pin Name	I/O	Description
1	I	I	I-V converted RF signal I input from the optical pick-up block detector
2	J	I	I-V converted RF signal J input from the optical pick-up block detector
3	VC	O	Middle point voltage (+1.65V) generation output terminal
4 to 9	A to F	I	Signal input from the optical pick-up detector
10	PD	I	Light amount monitor input from the optical pick-up block laser diode
11	APC	O	Laser amplifier output terminal to the automatic power control circuit
12	APCREF	I	Reference voltage input terminal for setting laser power
13	GND	—	Ground terminal
14	TEMPI	I	Connected to the temperature sensor
15	TEMPR	O	Output terminal for a temperature sensor reference voltage
16	SWDT	I	Writing serial data input from the CXD2654R (IC121)
17	SCLK	I	Serial data transfer clock signal input from the CXD2654R (IC121)
18	XLAT	I	Serial data latch pulse signal input from the CXD2654R (IC121)
19	$\overline{\text{XSTBY}}$	I	Standby signal input terminal "L": standby (fixed at "H" in this set)
20	F0CNT	I	Center frequency control voltage input terminal of internal circuit (BPF22, BPF3T, EQ) input from the CXD2654R (IC121)
21	VREF	O	Reference voltage output terminal Not used (open)
22	EQADJ	I	Center frequency setting terminal for the internal circuit (EQ)
23	3TADJ	I	Center frequency setting terminal for the internal circuit (BPF3T)
24	VCC	—	Power supply terminal (+3.3V)
25	WBLADJ	I	Center frequency setting terminal for the internal circuit (BPF22)
26	TE	O	Tracking error signal output to the CXD2654R (IC121)
27	CSLED	I	Connected to the external capacitor for low-pass filter of the sled error signal
28	SE	O	Sled error signal output to the CXD2654R (IC121)
29	ADFM	O	FM signal output of the ADIP
30	ADIN	I	Receives a ADIP FM signal in AC coupling
31	ADAGC	I	Connected to the external capacitor for ADIP AGC
32	ADFG	O	ADIP duplex signal (22.05 kHz ± 1 kHz) output to the CXD2654R (IC121)
33	AUX	O	Auxiliary signal (I_3 signal/temperature signal) output to the CXD2654R (IC121)
34	FE	O	Focus error signal output to the CXD2654R (IC121)
35	ABCD	O	Light amount signal (ABCD) output to the CXD2654R (IC121)
36	BOTM	O	Light amount signal (RF/ABCD) bottom hold output to the CXD2654R (IC121)
37	PEAK	O	Light amount signal (RF/ABCD) peak hold output to the CXD2654R (IC121)
38	RF	O	Playback EFM RF signal output to the CXD2654R (IC121)
39	RFAGC	I	Connected to the external capacitor for RF auto gain control circuit
40	AGCI	I	Receives a RF signal in AC coupling
41	COMPO	O	User comparator output terminal Not used (open)
42	COMPP	I	User comparator input terminal Not used (fixed at "L")
43	ADDC	I	Connected to the external capacitor for cutting the low band of the ADIP amplifier
44	OPO	O	User operational amplifier output terminal Not used (open)
45	OPN	I	User operational amplifier inversion input terminal Not used (fixed at "L")
46	RFO	O	RF signal output terminal
47	MORFI	I	Receives a MO RF signal in AC coupling
48	MORFO	O	MO RF signal output terminal

• **BD BOARD IC121 CXD2654R**
(DIGITAL SIGNAL PROCESSOR, DIGITAL SERVO SIGNAL PROCESSOR, EFM/ACIRC ENCODER/DECODER, SHOCK PROOF MEMORY CONTROLLER, ATRAC ENCODER/DECODER)

Pin No.	Pin Name	I/O	Description
1	MNT0 (FOK)	O	Focus OK signal output to the MD mechanism controller (IC601) "H" is output when focus is on ("L": NG)
2	MNT1 (SHOCK)	O	Track jump detection signal output to the MD mechanism controller (IC601)
3	MNT2 (XBUSY)	O	Busy monitor signal output to the MD mechanism controller (IC601)
4	MNT3 (SLOCK)	O	Spindle servo lock status monitor signal output to the MD mechanism controller (IC601)
5	SWDT	I	Writing serial data signal input from the MD mechanism controller (IC601)
6	SCLK	I (S)	Serial data transfer clock signal input from the MD mechanism controller (IC601)
7	XLAT	I (S)	Serial data latch pulse signal input from the MD mechanism controller (IC601)
8	SRDT	O (3)	Reading serial data signal output to the MD mechanism controller (IC601)
9	SENS	O (3)	Internal status (SENSE) output to the MD mechanism controller (IC601)
10	$\overline{\text{XRST}}$	I (S)	Reset signal input from the MD mechanism controller (IC601) "L": reset
11	SQSY	O	Subcode Q sync (SCOR) output to the MD mechanism controller (IC601) "L" is output every 13.3 msec Almost all, "H" is output
12	DQSY	O	Digital In U-bit CD format subcode Q sync (SCOR) output to the MD mechanism controller (IC601) "L" is output every 13.3 msec Almost all, "H" is output
13	RECP	I	Laser power selection signal input from the MD mechanism controller (IC601) "L": playback mode, "H": recording mode
14	XINT	O	Interrupt status output to the MD mechanism controller (IC601)
15	TX	I	Recording data output enable signal input from the MD mechanism controller (IC601) Writing data transmission timing input (Also serves as the magnetic head on/off output)
16	OSCI	I	System clock signal (512Fs=22.5792 MHz) input terminal
17	OSCO	O	System clock signal (512Fs=22.5792 MHz) output terminal Not used (open)
18	XTSL	I	Input terminal for the system clock frequency setting "L": 45.1584 MHz, "H": 22.5792 MHz (fixed at "H" in this set)
19	DIN0	I	Digital audio signal input terminal when recording mode (for digital optical input) Not used
20	DIN1	I	Digital audio signal input terminal when recording mode (for digital optical input)
21	DOUT	O	Digital audio signal output terminal when playback mode (for digital optical output) Not used
22	DATAI	I	Serial data input terminal Not used (fixed at "L")
23	LRCKI	I	L/R sampling clock signal (44.1 kHz) input terminal Not used (fixed at "L")
24	XBCKI	I	Bit clock signal (2.8224 MHz) input terminal Not used (fixed at "L")
25	ADDT	I	Recording data input from the A/D, D/A converter (IC603)
26	DADT	O	Playback data output to the A/D, D/A converter (IC603)
27	LRCK	O	L/R sampling clock signal (44.1 kHz) output to the A/D, D/A converter (IC603)
28	XBCK	O	Bit clock signal (2.8224 MHz) output to the A/D, D/A converter (IC603)
29	FS256	O	Clock signal (11.2896 MHz) output terminal Not used (open)
30	DVDD	—	Power supply terminal (+3.3V) (digital system)
31 to 34	A03 to A00	O	Address signal output to the D-RAM (IC124)
35	A10	O	Address signal output to the external D-RAM Not used (open)
36 to 40	A04 to A08	O	Address signal output to the D-RAM (IC124)
41	A11	O	Address signal output to the external D-RAM Not used (open)
42	DVSS	—	Ground terminal (digital system)
43	$\overline{\text{XOE}}$	O	Output enable signal output to the D-RAM (IC124) "L" active
44	$\overline{\text{XCAS}}$	O	Column address strobe signal output to the D-RAM (IC124) "L" active
45	A09	O	Address signal output to the D-RAM (IC124)

Pin No.	Pin Name	I/O	Description
46	$\overline{\text{XRAS}}$	O	Row address strobe signal output to the D-RAM (IC124) "L" active
47	$\overline{\text{XWE}}$	O	Write enable signal output to the D-RAM (IC124) "L" active
48	D1	I/O	Two-way data bus with the D-RAM (IC124)
49	D0	I/O	
50	D2	I/O	
51	D3	I/O	
52	MVCI	I (S)	Digital in PLL oscillation input from the external VCO Not used (fixed at "L")
53	ASYO	O	Playback EFM full-swing output terminal
54	ASYI	I (A)	Playback EFM asymmetry comparator voltage input terminal
55	AVDD	—	Power supply terminal (+3.3V) (analog system)
56	BIAS	I (A)	Playback EFM asymmetry circuit constant current input terminal
57	RFI	I (A)	Playback EFM RF signal input from the CXA2523AR (IC101)
58	AVSS	—	Ground terminal (analog system)
59	PCO	O (3)	Phase comparison output for master clock of the recording/playback EFM master PLL
60	FILI	I (A)	Filter input for master clock of the recording/playback master PLL
61	FILO	O (A)	Filter output for master clock of the recording/playback master PLL
62	CLTV	I (A)	Internal VCO control voltage input of the recording/playback master PLL
63	PEAK	I (A)	Light amount signal (RF/ABCD) peak hold input from the CXA2523AR (IC101)
64	BOTM	I (A)	Light amount signal (RF/ABCD) bottom hold input from the CXA2523AR (IC101)
65	ABCD	I (A)	Light amount signal (ABCD) input from the CXA2523AR (IC101)
66	FE	I (A)	Focus error signal input from the CXA2523AR (IC101)
67	AUX1	I (A)	Auxiliary signal (I_3 signal/temperature signal) input from the CXA2523AR (IC101)
68	VC	I (A)	Middle point voltage (+1.65V) input from the CXA2523AR (IC101)
69	ADIO	O (A)	Monitor output of the A/D converter input signal Not used (open)
70	AVDD	—	Power supply terminal (+3.3V) (analog system)
71	ADRT	I (A)	A/D converter operational range upper limit voltage input terminal (fixed at "H" in this set)
72	ADRB	I (A)	A/D converter operational range lower limit voltage input terminal (fixed at "L" in this set)
73	AVSS	—	Ground terminal (analog system)
74	SE	I (A)	Sled error signal input from the CXA2523AR (IC101)
75	TE	I (A)	Tracking error signal input from the CXA2523AR (IC101)
76	DCHG	I (A)	Connected to the +3.3V power supply
77	APC	I (A)	Error signal input for the laser automatic power control Not used (fixed at "H")
78	ADFG	I (S)	ADIP duplex FM signal (22.05 kHz ± 1 kHz) input from the CXA2523AR (IC101)
79	F0CNT	O	Filter f0 control signal output to the CXA2523AR (IC101)
80	XLRF	O	Serial data latch pulse signal output to the CXA2523AR (IC101)
81	CKRF	O	Serial data transfer clock signal output to the CXA2523AR (IC101)
82	DTRF	O	Writing serial data output to the CXA2523AR (IC101)
83	APCREF	O	Control signal output to the reference voltage generator circuit for the laser automatic power control
84	LDDR	O	PWM signal output for the laser automatic power control Not used (open)
85	TRDR	O	Tracking servo drive PWM signal (–) output to the BH6511FS (IC152)
86	TFDR	O	Tracking servo drive PWM signal (+) output to the BH6511FS (IC152)
87	DVDD	—	Power supply terminal (+3.3V) (digital system)
88	FFDR	O	Focus servo drive PWM signal (+) output to the BH6511FS (IC152)
89	FRDR	O	Focus servo drive PWM signal (–) output to the BH6511FS (IC152)
90	FS4	O	Clock signal (176.4 kHz) output terminal (X'tal system) Not used (open)

Pin No.	Pin Name	I/O	Description
91	SRDR	O	Sled servo drive PWM signal (–) output to the BH6511FS (IC152)
92	SFDR	O	Sled servo drive PWM signal (+) output to the BH6511FS (IC152)
93	SPRD	O	Spindle servo drive PWM signal (–) output to the BH6511FS (IC152)
94	SPFD	O	Spindle servo drive PWM signal (+) output to the BH6511FS (IC152)
95	FGIN	I (S)	Input terminal for the test (fixed at "L")
96	TEST1	I	
97	TEST2	I	
98	TEST3	I	
99	DVSS	—	Ground terminal (digital system)
100	EFMO	O	EFM signal output terminal when recording mode

* I (S) stands for schmitt input, I (A) for analog input, O (3) for 3-state output, and O (A) for analog output in the column I/O.

• MAIN BOARD IC405 CXP740096-032Q (SYSTEM CONTROLLER)

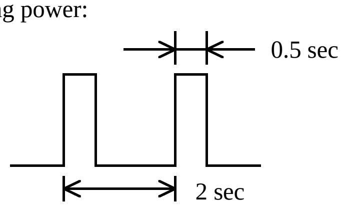
Pin No.	Pin Name	I/O	Description
1	MD	O	Function select signal output for the MD playback signal "L": MD, "H": other function
2	RADIO/LINE	O	Function select signal output for the tuner/line input signal "L": tuner/line in, "H": other function
3	AC-CHK	I	AC power supply detection signal input "L": AC in
4 to 6	NC	—	Not used (open)
7	RDS-DATA	I	RDS serial data input from the RDS decoder Used for the AEP, UK models (US, Canadian models: not used (fixed at "L"))
8	NC	—	Not used (open)
9	RDS-CLK	I	RDS serial data transfer clock signal input from the RDS decoder Used for the AEP, UK models (US, Canadian models: not used (fixed at "L"))
10	CD-TURN	I	CD lid start closing detection signal input "H": start closing
11	M/B	O	MEGA BASS on/off control signal output "L": MEGA BASS on
12	CD-OPEN	O	CD lid open/close motor (M703) drive signal output "H": during CD lid open
13	CD-CLOSE	O	CD lid open/close motor (M703) drive signal output "H": during CD lid close
14 to 16	NC	—	Not used (open)
17	MD-H	O	MD play control signal output to the A/D, D/A converter (IC603) "L": MD playback mode
18	REC-H	O	MD rec control signal output to the A/D, D/A converter (IC603) "L": MD recording mode
19	MD-RST	O	Power supply on/off control signal output for the MD mechanism controller (IC601) "H": power on
20	MD-SCTS	O	System controller busy status monitor output to the MD mechanism controller (IC601)
21	MD-SRTS	I	MD mechanism controller busy status monitor input from the MD mechanism controller (IC601)
22	MD-PDOWN	O	Power down signal output to the MD mechanism controller (IC601) "L": power down
23	D/L CON	O	CD disc illumination lamp (PL550) drive signal output "H": lights up
24	LCD-RST	O	Reset signal output to the liquid crystal display (LCD500)
25	LCD-CE	O	Chip enable signal output to the liquid crystal display (LCD500)
26	LCD-AO	O	Address signal output to the liquid crystal display (LCD500)
27	LED-MD	O	LED drive signal output of the ▷II MD indicator (D550) "H": LED on
28	LED-RADIO	O	LED drive signal output of the BAND TUNER indicator (D552) "H": LED on
29	LED-CD	O	LED drive signal output of the ▷II CD indicator (D551) "H": LED on
30	NC	—	Not used (open)
31	RADIO-POWER	O	Tuner system power supply on/off control signal output "L": power on
32	CD-POWER	O	CD servo system power supply on/off control signal output "L": power on
33	HI-LED	O	LED drive signal output of the HIGH SPEED indicator (D555) "H": LED on
34	CD-12HISP	O	CD spindle motor control signal output
35 to 38	NC	—	Not used (open)
39	TU-SFT	O	Level shift of the main system clock control terminal
40	$\overline{RST}$	I	System reset signal input from the reset signal generator (IC404) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
41	VSS	—	Ground terminal
42	XTAL	I	Main system clock input terminal (8 MHz)
43	EXTAL	O	Main system clock output terminal (8 MHz)
44	SELECT-GND	I	Destination setting terminal Fixed at "H" in this set
45	HP-SW	I	Headphone plug in/out detection input "L": plug in
46	LCD-DATA	O	Serial data output to the liquid crystal display (LCD500)
47	LCD-CLK	O	Serial data transfer clock signal output to the liquid crystal display (LCD500)
48	CD-DOOR	I	Detection signal input from the CD lid open/close detect switch (S761/762)
49	JOG-A	I	Jog dial pulse input from the rotary encoder (S556) (A phase input)
50	JOG-B	I	Jog dial pulse input from the rotary encoder (S556) (B phase input)

Pin No.	Pin Name	I/O	Description
51	SELECT	I	Destination setting terminal
52	AVSS	—	Ground terminal (for A/D converter)
53	AVREF	I	Reference voltage (+3.3V) input terminal (for A/D converter)
54	AVDD	—	Power supply terminal (+3.3V) (for A/D converter)
55	LED-PRESET/AMS	O	LED drive signal output of the PRESET/AMS indicator (D553) "H": LED on
56	LED-SELECT	O	LED drive signal output of the SELECT indicator (D554) "H": LED on
57	LINE	O	Function select signal output for the line input signal "L": line in, "H": other function
58	LINE-LEVEL	O	Line in level control signal output "L": normal, "H": high
59	KEY4	I	Key input terminal (A/D input) □ (MD), ▷II MD, BAND RADIO, ▷II CD, □ (CD), CD OPEN/CLOSE ⏏, LINE/LINE IN keys input (S550 to S555 and S579)
60	KEY3	I	Key input terminal (A/D input) DELETE, TUNE ⇦ – ◀◀, NO CANCEL, EDIT, YES ENTER, DISPLAY, TUNE + ⇨ ▶▶, INSERT keys input (S557 to S564)
61	KEY2	I	Key input terminal (A/D input) VOL +/–, BASS/TREBLE, MEGA BASS, MD EJECT ⏏, MONO/ST REPEAT, AUTO PRESET SHUF/PGM keys input (S565 to S571)
62	KEY1	I	Key input terminal (A/D input) POWER, SLEEP, STANDBY, SYNCHRO REC CD ▶ MD, REC IT TO TOP/END, REC, HIGH SPEED keys input (S572 to S580)
63	R-MUTE	O	Muting on/off control signal output for the tuner signal "L": muting on
64	R-COUNT	I	PLL serial data input from the LC72137M (IC2)
65	R-CLK	O	PLL serial data transfer clock signal output to the LC72137M (IC2)
66	R-DATA	O	PLL serial data output to the LC72137M (IC2)
67	R-CE	O	PLL serial chip enable signal output to the LC72137M (IC2)
68	HI-SPEED	O	High speed recording on/off control signal output "L": high speed recording
69	MD-SRXD	I	UART communication data input from the MD mechanism controller (IC601)
70	MD-STXD	O	UART communication data output to the MD mechanism controller (IC601)
71 to 73	NC	—	Not used (open)
74	CD-CLK	O	Serial data transfer clock signal output to the CXD3009Q (IC702)
75	CD-XLAT	O	Serial data latch pulse signal output to the CXD3009Q (IC702)
76	CD-DATA	O	Serial data output to the CXD3009Q (IC702)
77	CD-SENSE1	I	Internal status (SENSE) input from the CXD3009Q (IC702)
78	CD-SCOR	I	Subcode sync (S0+S1) detection signal input from the CXD3009Q (IC702)
79	CD-SQSO	I	Subcode Q data input from the CXD3009Q (IC702)
80	CD-SHORT	I	Detection signal input of supplied the power to CD block
81	CD-SQCK	O	Subcode Q data reading clock signal output to the CXD3009Q (IC702)
82	CD-MUTE	O	Muting on/off control signal output for the CD playback signal "L": muting on
83	CD-FOK	I	Focus OK signal input terminal Not used (open)
84	CD-SENSE2	I	Internal status (SENSE) input from the CXA2542AQ (IC701)
85	RMC	I	Sircs remote control signal input from the remote control receiver (IC550)
86	TEX	O	Sub system clock output terminal (32.768 kHz)
87	TX	I	Sub system clock input terminal (32.768 kHz)
88	VSS	—	Ground terminal
89	VDD	—	Power supply terminal (+3.3V)
90	NC	—	Not used (open)
91	$\overline{\text{CD-XRST}}$	O	Reset signal output to the CXA2542AQ (IC701) and CXD3009Q (IC702) "L": reset
92	NC	—	Not used (open)
93	SPEED-L	O	CD lid open/close motor (M703) drive signal output "L": open
94	AU-DATA	O	Serial data output to the electrical volume (IC351)

Pin No.	Pin Name	I/O	Description
95	AU-CLK	O	Serial data transfer clock signal output to the electrical volume (IC351)
96	B/L CONT	O	Back light lamp (PL553 to PL555) drive signal output for the liquid crystal display (LCD500) “L”: lights down (standby), “H”: lights up (power on)
97	PA-STANDBY	O	Power amp on/off control signal output “L”: standby, “H”: power on
98	AMUTE	O	Audio muting on/off control signal output “H”: muting on
99	CD	O	Function select signal output for the CD playback signal “L”: CD, “H”: other function
100	P-CON	O	Power on/off control signal output “L”: standby mode, “H”: power on

• **DG BOARD IC601 RU8X12MF-0031 (MD MECHANISM CONTROLLER)**

Pin No.	Pin Name	I/O	Description
1, 2	DAOUT0, DAOUT1	O	Not used (open)
3 to5	KEY0 to KEY2	I	Key input terminal (A/D input) Not used (fixed at "H")
6	CHACK-IN	I	Detection input from the disc chucking-in detect switch "L": chucking Not used (fixed at "H")
7	PACK-IN	I	Detection input from the loading-in detect switch "L" at a load-out position, others: "H" Not used (fixed at "H")
8	PACK-OUT	I	Detection input from the loading-out detect switch (S602) "L" at a load-out position, others: "H"
9, 10	NC	—	Not used (fixed at "L")
11	AVSS	—	Ground terminal
12	XINT	I	Interrupt status input from the CXD2654R (IC121)
13	$\overline{\text{PDOWN}}$	I	Power down detection signal input terminal "L": power down, normally: "H"
14	NC	—	Not used (fixed at "L")
15	SQSY	I	Subcode Q sync (SCOR) input from the CXD2654R (IC121) "L" is input every 13.3 msec Almost all, "H" is input
16	DQSY	I	Digital In U-bit CD format subcode Q sync (SCOR) input from the CXD2654R (IC121) "L" is input every 13.3 msec Almost all, "H" is input
17 to 19	NC	—	Not used (fixed at "L")
20	$\overline{\text{SYS-RST}}$	I	System reset signal input from the reset switch (Q604) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
21	TEST	I	Setting terminal for the test mode Not used (fixed at "L")
22	+3.3V	—	Power supply terminal (+3.3V)
23	VBAT	I	Power supply for the internal real time clock and RAM
24	XOUT-T	O	Sub system clock output terminal (32.768 kHz)
25	XIN-T	I	Sub system clock input terminal (32.768 kHz)
26	GND	—	Ground terminal
27	XOUT	O	Main system clock output terminal (12 MHz)
28	XIN	I	Main system clock input terminal (12 MHz)
29	EXMEM	I	Setting terminal external ROM mode or internal ROM mode "L": internal ROM mode (fixed at "L")
30	S1	—	Not used (open)
31	NC	—	Not used (fixed at "L")
32	SENS	I	Internal status (SENSE) input from the CXD2654R (IC121)
33	SHOCK	I	Track jump detection signal input from the CXD2654R (IC121)
34 to 35	NC	—	Not used (fixed at "L")
36	STB	O	Relay drive signal output for the power on/off "L": standby mode, "H": relay on
37	REC P	I	Detection input from the recording position detect switch (S601) "L" active
38	PB P	I	Detection input from the playback position detect switch (S604) "L" active
39	LD-LOW	O	Loading motor drive voltage control signal output for the loading motor driver (IC602) "H" active
40	NC	—	Not used (open)
41	MNT2 (XBUSY)	I	Busy status signal input from the CXD2654R (IC121)
42	MNT3 (SLOCK)	I	Spindle servo lock status monitor signal input from the CXD2654R (IC121)
43	LED0	O	LED drive signal output terminal "L": LED on Not used (open)
44 to 45	NC	—	Not used (fixed at "L")
46	RST-LOW	—	Not used (open)
47	GND	—	Ground terminal

Pin No.	Pin Name	I/O	Description
48	+3.3V	—	Power supply terminal (+3.3V)
49	SNG/CHG	—	Not used (fixed at “L”)
50, 51	JOG1, JOG0	I	JOG dial pulse input Not used (fixed at “L”)
52	SDA	I/O	Two-way data bus with the EEPROM (IC171)
53	SCL	O	Clock signal output to the EEPROM (IC171)
54	2M/4M	I	Select whether D-RAM capacitance 2M bit or 4M bit “L”: 4M bit (external D-RAM), “H”: 2M bit (internal D-RAM of IC121 CXD2654R) (fixed at “H” in this set)
55, 56	NC	—	Not used (fixed at “L”)
57	RXD (UART)	I	UART communication data input from the system controller (IC405)
58	TXD (UART)	O	UART communication data output to the system controller (IC405)
59	RTS	I	RTS (Request To Send) input from the system controller (IC405)
60	CTS	O	CTS (Clear To Send) output to the system controller (IC405)
61, 62	AUBIT0, AUBIT1	—	Not used (fixed at “L”)
63, 64	CLKSET0, CLKSET1	I	Clock destination setting terminal (fixed at “L”)
65	GND	—	Ground terminal
66	+3.3V	—	Power supply terminal (+3.3V)
67	SCLK	O	Serial clock signal output to the CXD2654R (IC121)
68	SWDT	O	Writing data output to the CXD2654R (IC121)
69	SRDT	I	Reading data input from the CXD2654R (IC121)
70	EMP	O	Emphasis control signal output to the A/D, D/A converter (IC603) when recording mode
71	SCK1	O	Display serial clock signal output terminal Not used (open)
72	SOUT1	O	Display serial data output terminal Not used (open)
73	SIN1	O	Chip select signal output for the display Not used (open)
74	CSB	I	Not used (fixed at “H”)
75	LDON	O	Laser diode on/off control signal output to the automatic power control circuit “H”: laser on
76	PIT/GRV	O	Pit/groove detection signal output terminal “H”: is output for the playback only disc or TOC area Not used (open)
77	FOK	I	Focus OK signal input from the CXD2654R (IC121) “H” is input when focus is on (“L”: NG)
78	NC	—	Not used (open)
79	LOCK	O	Lock signal output terminal Not used (open)
80	WRPWR	O	Laser power select signal output to the CXD2654R (IC121) and HF module switch circuit “L”: playback mode, “H”: recording mode
81	$\overline{\text{DIG-RST}}$	O	Reset signal output to the CXD2654R (IC121) and BH6511FS (IC152) “L”: reset
82	NC	—	Not used (open)
83	$\overline{\text{DA-RST}}$	O	Reset signal output to the A/D, D/A converter (IC603) “L”: reset
84	DSEL-A	—	Not used (open)
85	DSEL-B	—	Not used (open)
86	MOD	O	Laser modulation select signal output to the HF module switch circuit Stop: “L”, Playback power: “H”, Recording power: 

Pin No.	Pin Name	I/O	Description
87	REC/$\overline{\text{PB}}$	O	Not used (open)
88	NC	—	Not used (open)
89	SCTX	O	Recording data output enable signal output to the CXD2654R (IC121) and overwrite head driver (IC181) Writing data transmission timing output (Also serves as the magnetic head on/off output)
90	XLATCH	O	Serial data latch pulse signal output to the CXD2654R (IC121)
91, 92	NC	—	Not used (open)
93	AMUTE	O	Muting control signal output terminal Not used (open)
94	LDOUT	O	Motor control signal output to the loading motor driver (IC602) “L” active *1
95	LDIN	O	Motor control signal output to the loading motor driver (IC602) “L” active *1
96	LIMIT-IN	I	Detection input from the sled limit-in detect switch (S101) The optical pick-up is inner position when “L”
97	PROTECT	I	Rec-proof claw detect input from the protect detect switch (S102-2) “H”: write protect
98	REFLECT	I	Detection input from the disc reflection rate detect switch (S102-1) “L”: high reflection rate disc, “H”: low reflection rate disc
99	GND	—	Ground terminal
100	+3.3V	—	Power supply terminal (+3.3V)

*1 Loading motor (M103) control

Mode / Terminal	LOADING	EJECT	BRAKE	RUN IDLE
LDIN (pin ⑨⑤)	“L”	“H”	“L”	“H”
LDOUT (pin ⑨④)	“H”	“L”	“L”	“H”

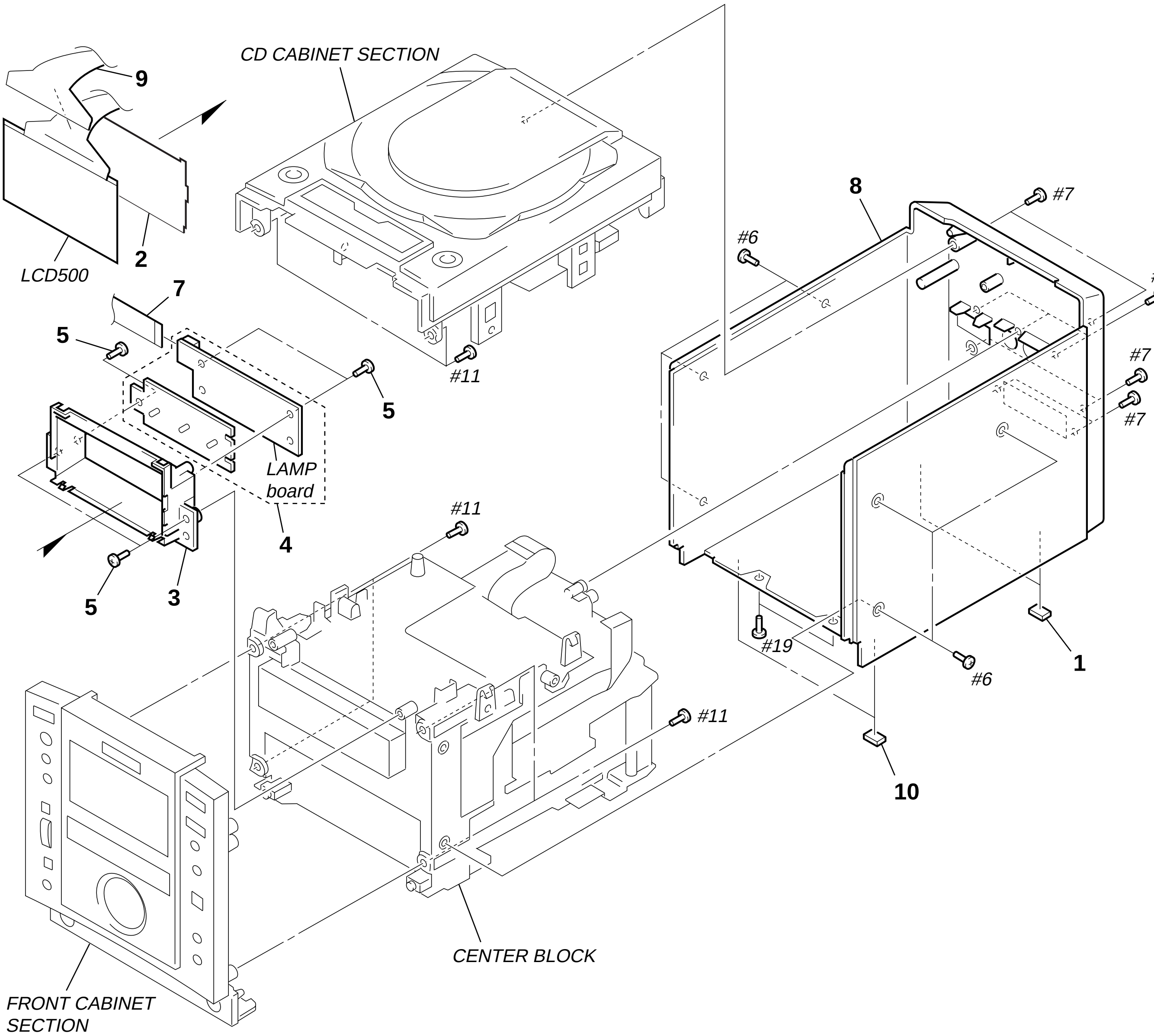
SECTION 7
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation
  CND : Canadian
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

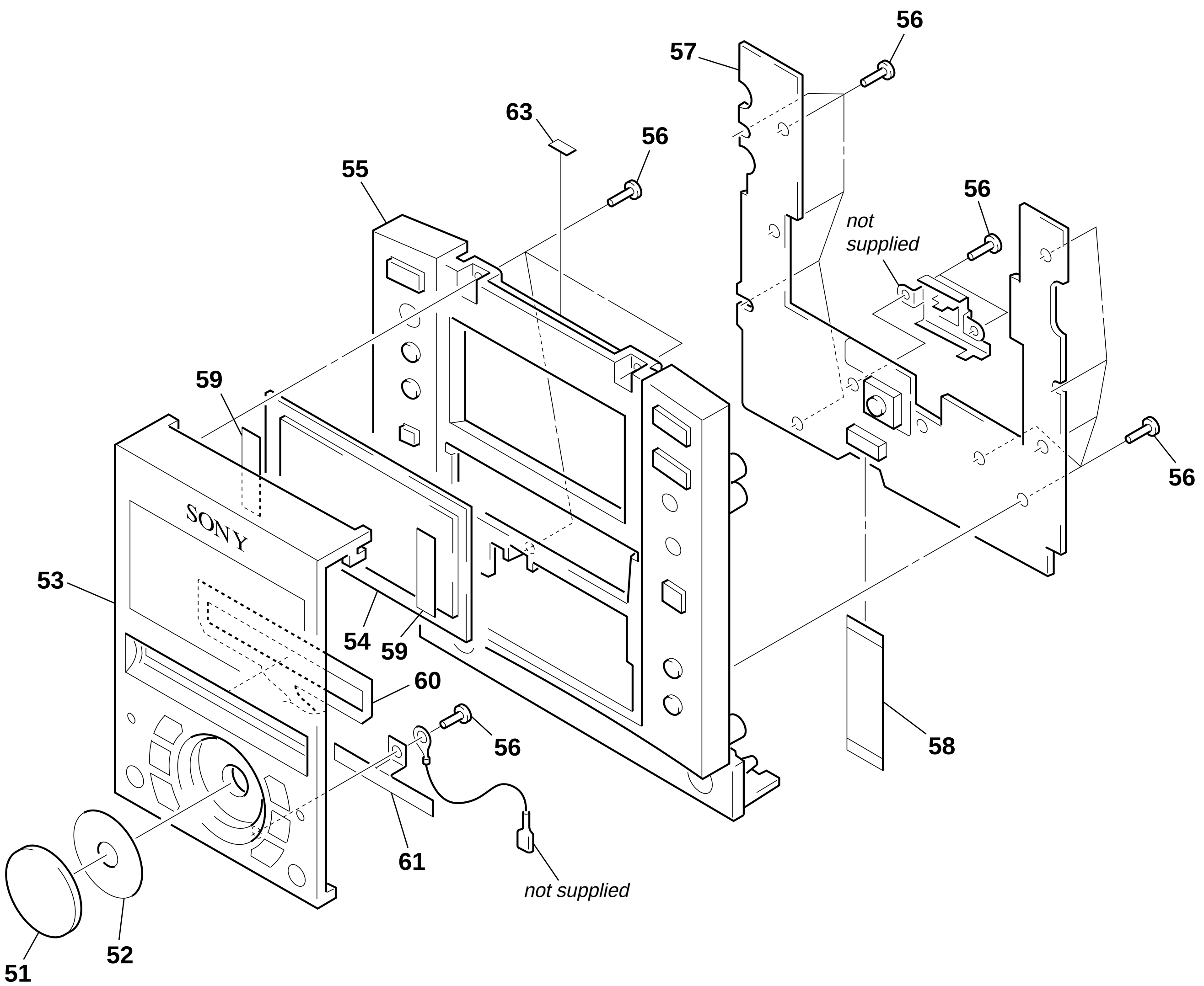
(1) CASE SECTION



Ref. No.	Part No.	Description	Remark
1	3-036-274-01	FOOT, RUBBER	
2	3-036-465-01	ILLUMINATOR	
3	3-036-361-01	HOLDER, LCD	
* 4	A-3323-215-A	LCD BOARD, COMPLETE (Including LAMP board complete) (US, CND)	
* 4	A-3323-275-A	LCD BOARD, COMPLETE (Including LAMP board complete) (AEP, UK)	
5	4-951-620-01	SCREW, (2.6X8), +BVTP	

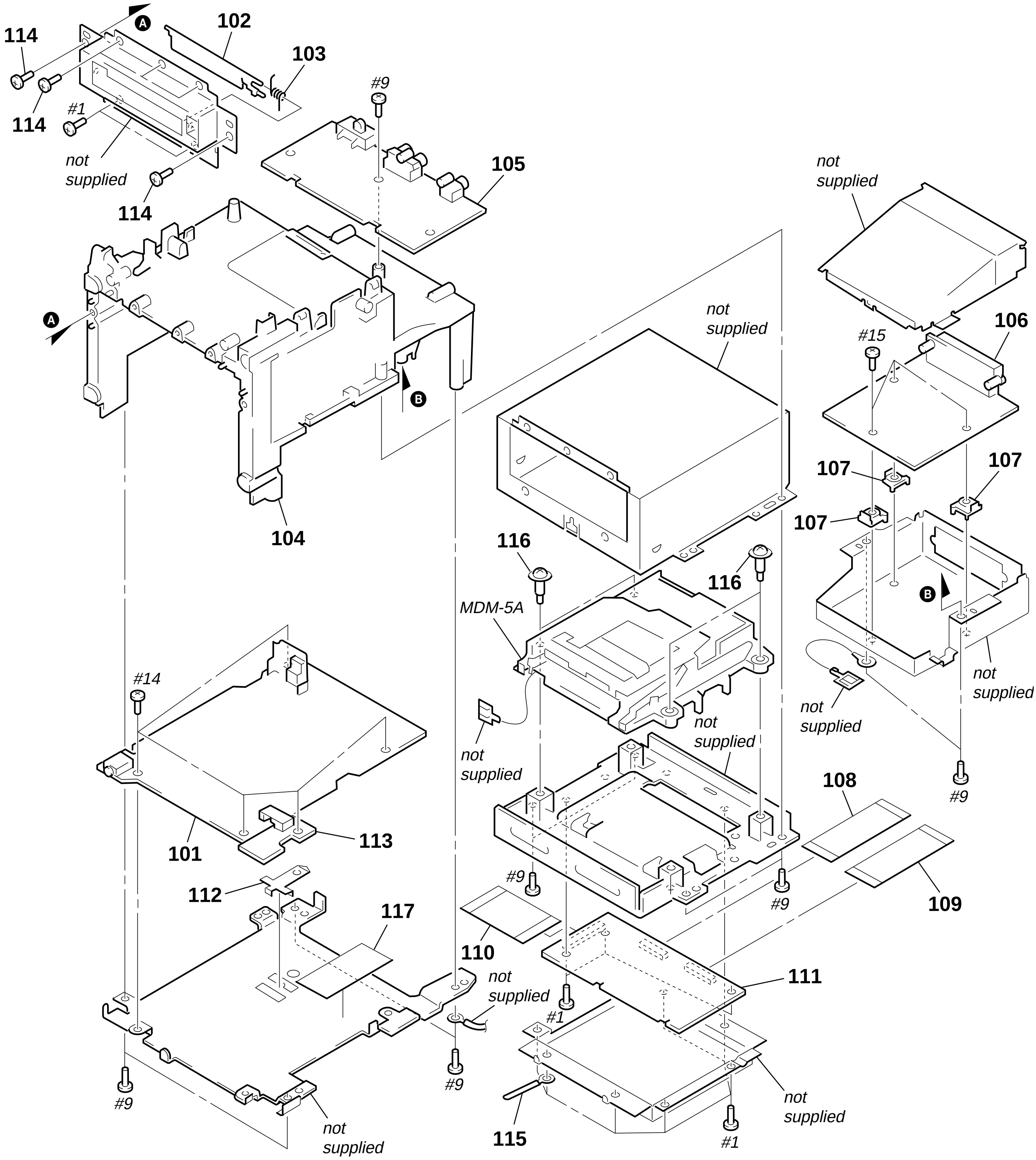
Ref. No.	Part No.	Description	Remark
* 7	1-790-785-11	WIRE, PARALLEL (FFC) 9P	
8	3-036-305-01	CABINET (REAR) (US, CND)	
8	3-036-305-11	CABINET (REAR) (AEP, UK)	
9	3-040-611-01	SHEET (LCD), ELECTROSTATIC	
10	3-040-916-01	FOOT (F), RUBBER	
LCD500	1-418-423-11	DISPLAY PANEL UNIT	

(2) FRONT CABINET SECTION



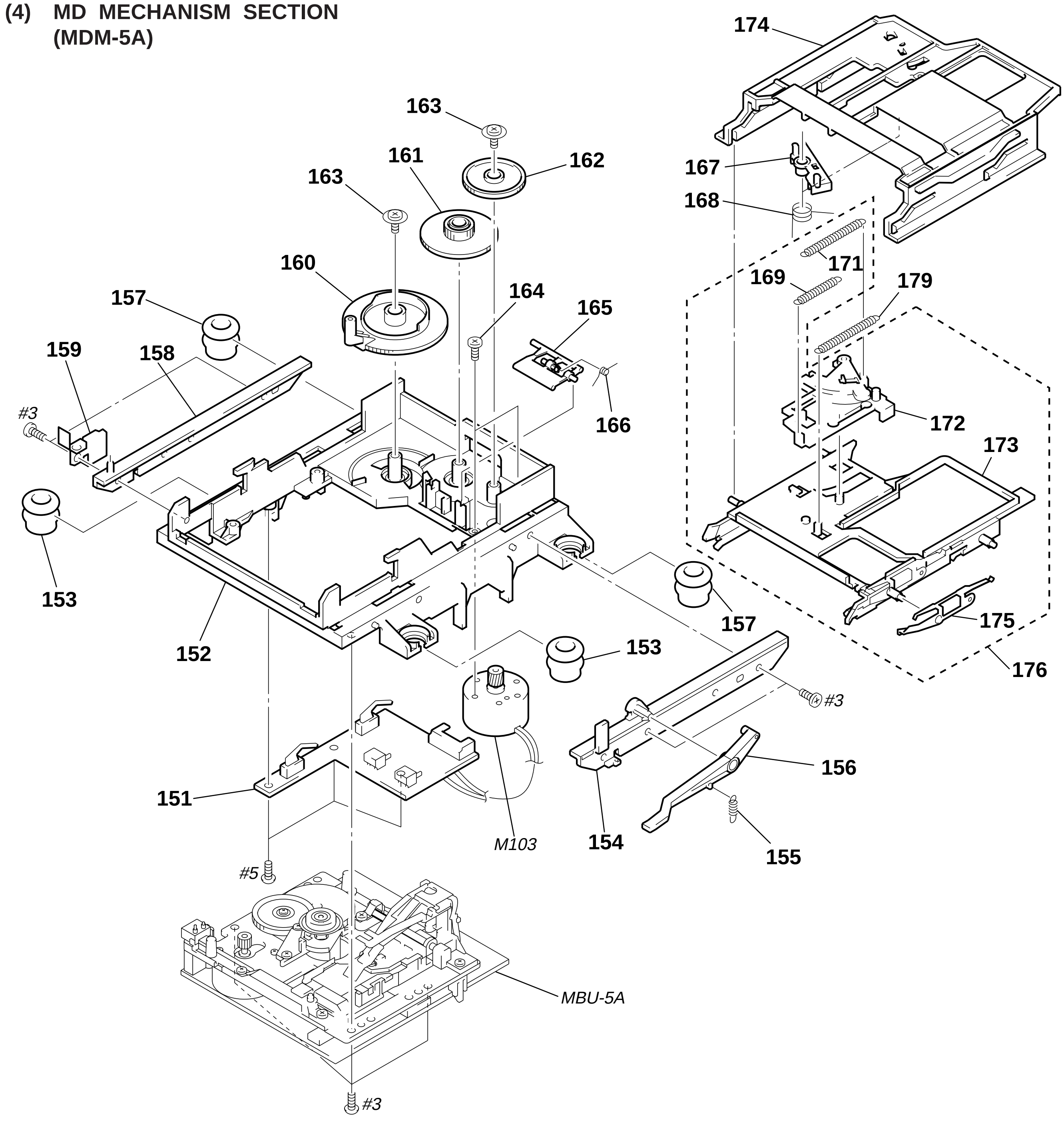
Ref. No.	Part No.	Description	Remark
51	3-027-660-03	DIAL, JOG	
52	3-036-268-01	SHEET (JOG)	
53	X-3377-446-1	PANEL ASSY, FRONT	
54	3-036-303-02	WINDOW (LCD)	
55	X-3377-445-1	CABINET (FRONT) SUB ASSY (GREY) (US)	
55	X-3377-974-1	CABINET (FRONT) SUB ASSY (GREY)	(CND, AEP, UK)
55	X-3378-138-1	CABINET (FRONT) SUB ASSY (WOOD)	(US, CND)
55	X-3378-139-1	CABINET (FRONT) SUB ASSY (WOOD)	(AEP, UK)
56	4-951-620-01	SCREW (2.6X8), +BVTP	
* 57	A-3323-216-A	SW (FRONT) BOARD, COMPLETE	
* 58	1-790-787-11	WIRE, PARALLEL (FFC) 12P	
59	3-040-319-01	SHEET (WINDOW), ADHESIVE	
60	3-040-612-01	SHEET (PANEL), ELECTROSTATIC	
61	3-039-500-01	SHEET (FRONT), ELECTROSTATIC	
63	3-831-441-11	CUSHION (B)	

(3) CENTER BLOCK



Ref. No.	Part No.	Description	Remark
* 101	A-3321-986-A	MAIN BOARD, COMPLETE (US, CND)	
101	A-3322-139-A	MAIN BOARD, COMPLETE (AEP, UK)	
102	3-036-318-01	CARTRIDGE, LID	
103	3-036-311-01	SPRING (MD LID)	
* 104	3-036-294-01	CHASSIS (MAIN)	
* 105	A-3321-988-A	AU/JACK BOARD, COMPLETE (US, CND)	
* 105	A-3322-141-A	AU/JACK BOARD, COMPLETE (AEP, UK)	
* 106	A-3323-212-A	TU BOARD, COMPLETE (US, CND)	
* 106	A-3323-274-A	TU BOARD, COMPLETE (AEP, UK)	
* 107	3-036-266-01	SPACER	
* 108	1-791-531-11	WIRE, PARALLEL (FFC) 21P	
* 109	1-791-532-11	WIRE, PARALLEL (FFC) 23P	
* 110	1-790-788-11	WIRE, PARALLEL (FFC) 26P	
* 111	A-3323-211-A	DG BOARD, COMPLETE (US, CND)	
* 111	A-3323-402-A	DG BOARD, COMPLETE (AEP, UK)	
* 112	3-036-464-01	PLATE (RESET)	
* 113	1-674-446-11	LINE IN BOARD	
114	4-951-620-01	SCREW (2.6X8), +BVTP	
* 115	3-703-150-11	CLAMP	
116	4-999-839-11	SCREW (+BVTTWH M3), STEP	
117	3-040-739-01	COVER (BOTTOM PLATE)	

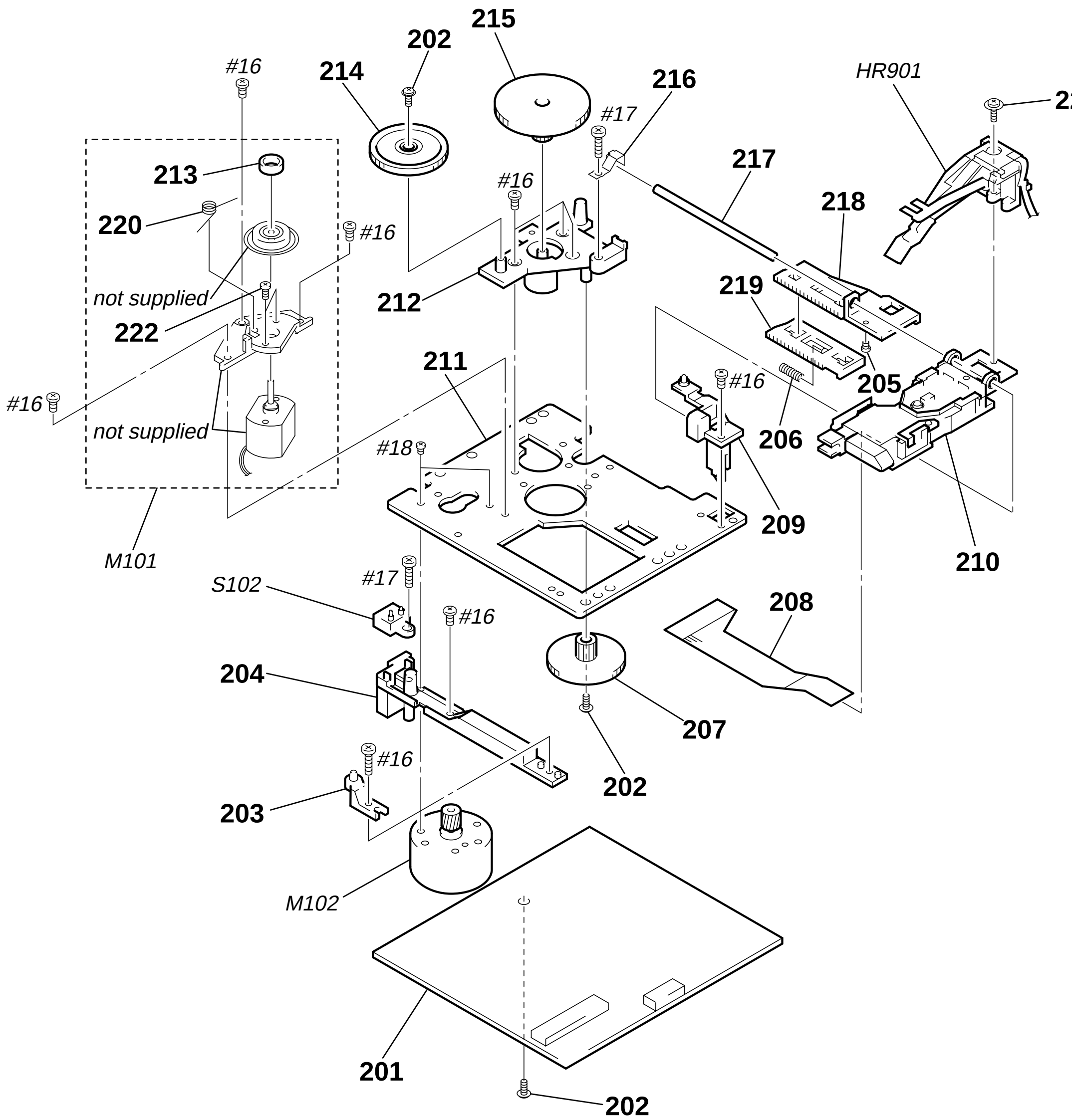
(4) MD MECHANISM SECTION (MDM-5A)



Ref. No.	Part No.	Description	Remark
151	1-671-115-21	SW BOARD	
* 152	4-996-217-01	CHASSIS	
153	4-996-223-11	INSULATOR (F) (BLACK)	
* 154	4-996-218-01	BRACKET (GUIDE R)	
155	4-996-277-01	SPRING (O/C), TENSION	
156	4-996-226-01	LEVER (O/C)	
157	4-999-347-01	INSULATOR (R) (GREEN)	
* 158	4-996-225-01	BRACKET (GUIDE L)	
159	4-988-466-11	SPRING (ELECTROSTATIC), LEAF	
160	4-996-219-01	GEAR (CAM GEAR)	
161	4-996-220-01	GEAR (A)	
162	4-996-221-01	GEAR (B)	
163	4-933-134-01	SCREW (+PTPWH M2.6X6)	
164	4-996-224-01	SCREW (1.7X3), +PWH	

Ref. No.	Part No.	Description	Remark
165	4-996-227-01	LEVER (HEAD)	
166	4-996-229-01	SPRING (HEAD LEVER), TORSION	
167	4-996-212-01	LEVER (LIMITTER)	
168	4-996-213-01	SPRING (LIMITTER), TORSION	
169	4-996-214-01	SPRING (SLIDER), TENSION	
171	4-996-215-11	SPRING (LOCK), TENSION	
172	X-4949-246-1	SLIDER ASSY	
* 173	X-4949-245-6	HOLDER ASSY	
* 174	4-996-211-01	SLIDER (CAM)	
175	4-998-763-01	SPRING (SHUTTER), LEAF	
176	A-4680-417-A	HOLDER COMPLETE ASSY	
179	4-996-216-01	SPRING, EXTENSION	
M103	X-4949-264-1	MOTOR ASSY, LOADING (LOADING)	

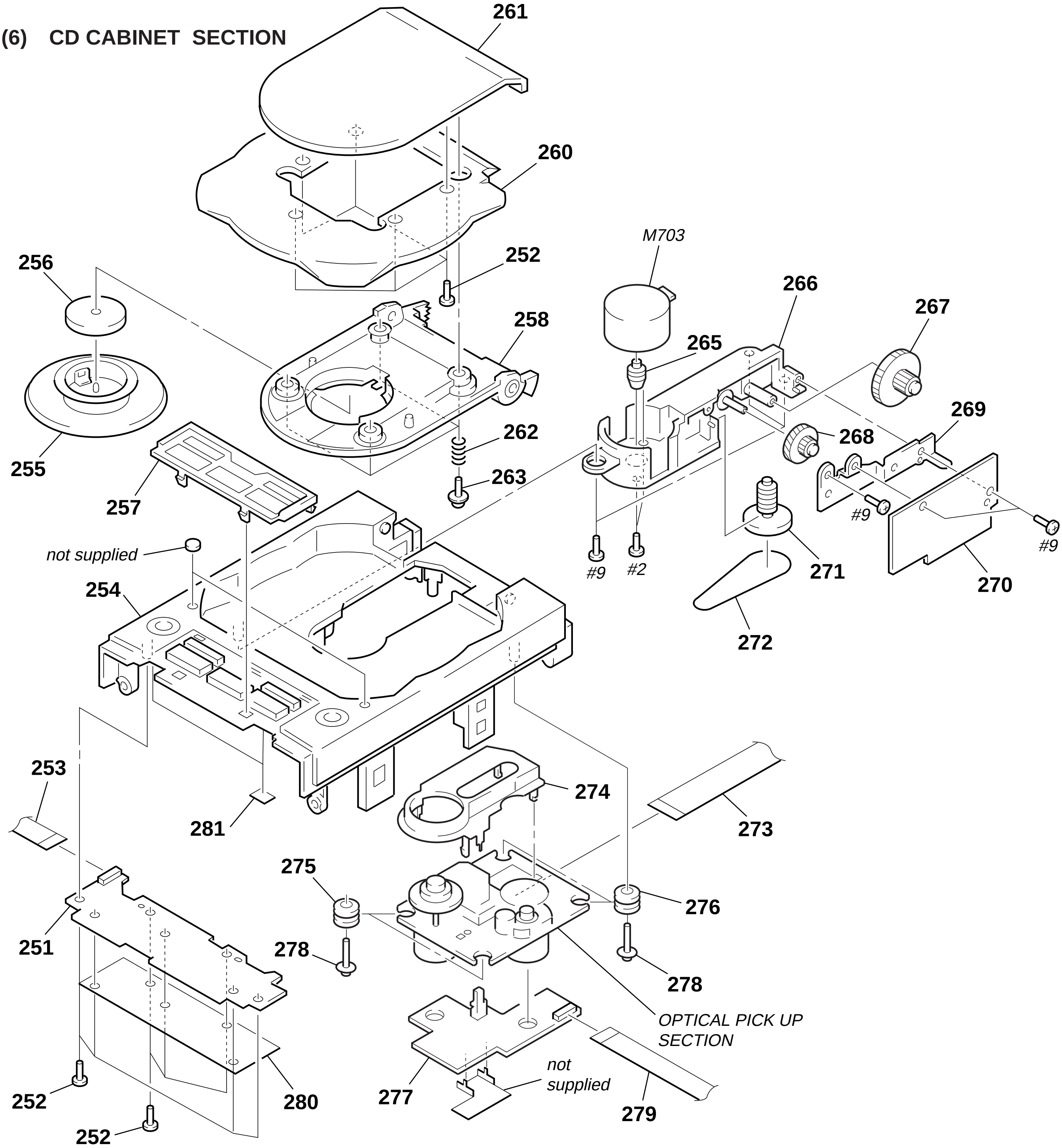
(5) BASE UNIT SECTION (MBU-5A)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
* 201	A-4699-893-A	BD BOARD, COMPLETE	
202	3-372-761-01	SCREW (M1.7), TAPPING	
* 203	4-996-267-01	BASE (BU-D)	
* 204	4-996-255-01	BASE (BU-C)	
205	4-900-590-01	SCREW, PRECISION SMALL	
206	4-996-258-01	SPRING, COMPRESSION	
207	4-996-262-01	GEAR (SL-C)	
208	1-667-954-11	FLEXIBLE BOARD	
* 209	4-996-253-01	BASE (BU-A)	
⚠210	8-583-028-02	OPTICAL PICK-UP KMS-260A (for MD)	
* 211	4-996-252-01	CHASSIS, BU	
* 212	4-996-254-01	BASE (BU-B)	
213	4-967-688-11	MAGNET, ABSORPTION	
214	4-996-260-01	GEAR (SL-A)	
215	4-996-261-01	GEAR (SL-B)	
216	4-996-264-01	SPRING (SHAFT), LEAF	
217	4-996-265-01	SHAFT, MAIN	
218	4-996-256-01	SL (BASE)	
219	4-996-257-01	RACK (SL)	
220	4-996-263-01	SPRING (CLV), TORSION	
221	4-988-560-01	SCREW (+P 1.7X6)	
222	4-211-036-01	SCREW (1.7X2.5), +PWH	
HR901	1-500-502-11	HEAD, OVER WRITE	
M101	A-4672-475-A	MOTOR ASSY, SPINDLE (SPINDLE) (for MD)	
M102	A-4672-474-A	MOTOR ASSY, SLED (SLED) (for MD)	
S102	1-762-148-21	SWITCH, PUSH (2 KEY) (REFLECT RATE/PROTECT DETECT)	

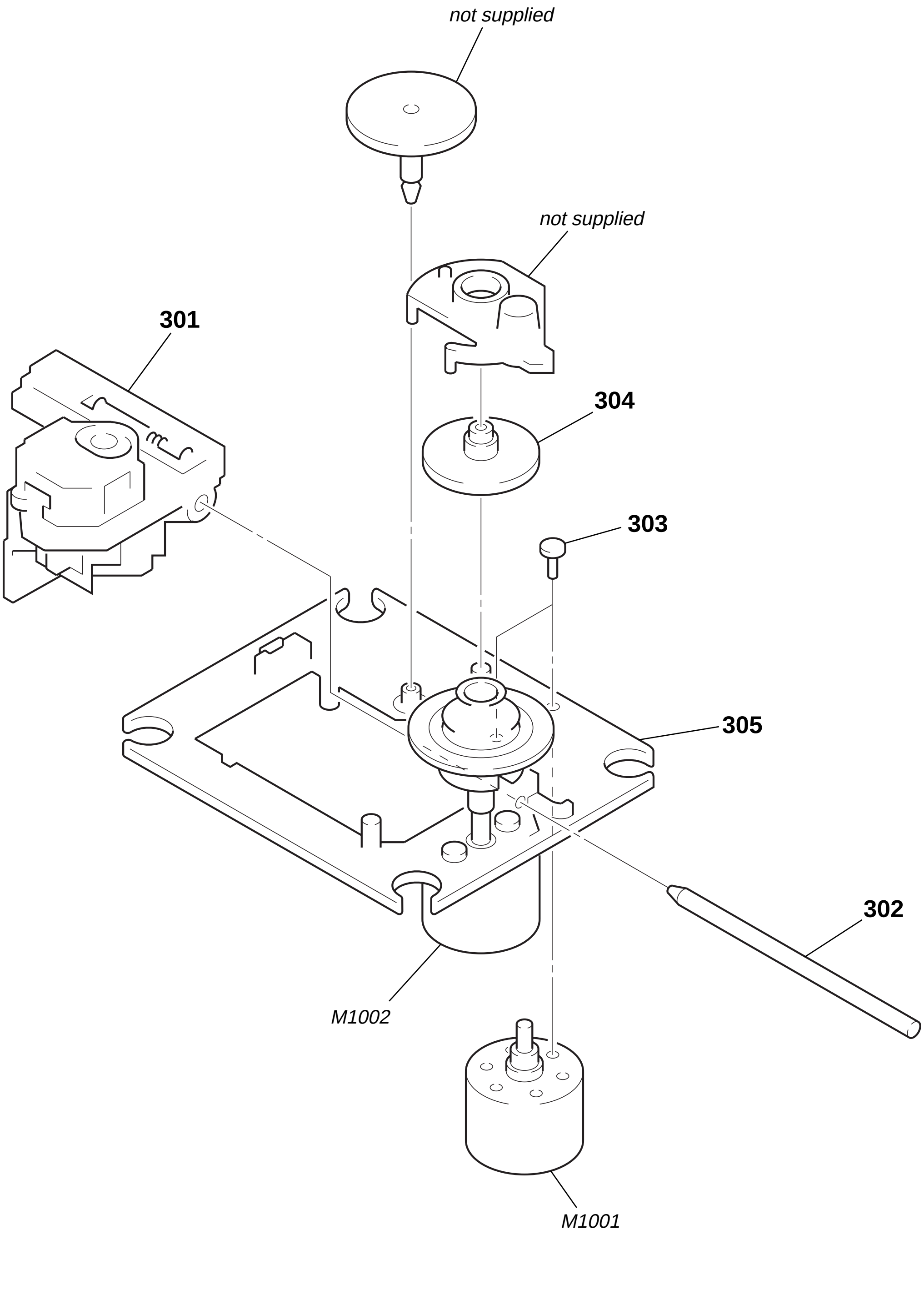
(6) CD CABINET SECTION



Ref. No.	Part No.	Description	Remark
* 251	A-3321-990-A	SW (TOP) BOARD, COMPLETE	
252	4-951-620-01	SCREW (2.6X8), +BVTP	
* 253	1-790-786-11	WIRE, PARALLEL (FFC) 8P	
254	X-3377-482-1	CABINET (UPPER) ASSY	
255	3-036-467-01	PLATE, CHUCKING	
256	1-452-899-11	MAGNET	
257	3-036-362-01	PANEL, TOP	
258	3-036-363-01	HOLDER, CHUCKING	
260	3-036-307-01	LID, CD	
261	3-036-306-01	PLATE, CD ORNAMENTAL	
262	3-036-466-01	SPRING (CD LID), COIL	
263	3-029-901-01	SCREW (3X8)	
265	2-627-174-01	PULLEY (M)	
266	3-036-309-01	CHASSIS, MOTOR	
267	3-036-358-01	GEAR (C)	
268	3-036-319-01	GEAR (B)	

Ref. No.	Part No.	Description	Remark
269	3-036-288-01	PLATE (GEAR), RETAINER	
* 270	A-3321-992-A	CD O/C BOARD, COMPLETE (US, CND)	
* 270	A-3322-149-A	CD O/C BOARD, COMPLETE (AEP, UK)	
271	3-017-031-11	GEAR (A)	
272	3-017-030-01	BELT	
* 273	1-790-784-11	WIRE, PARALLEL (FFC) 16P	
274	3-923-736-01	COVER, CD	
275	3-910-095-31	RUBBER, VIBRATION PROOF (GREEN)	
276	3-910-095-21	RUBBER, VIBRATION PROOF (RED)	
* 277	A-3321-991-A	CD MOTOR BOARD, COMPLETE	
278	3-921-725-01	SCREW (2.6X10), +PWH	
* 279	1-791-028-11	WIRE, PARALLEL (FFC) 11P	
280	3-040-738-01	COVER (TOP PC BOARD)	
281	3-831-441-11	CUSHION B	
M703	1-698-999-11	MOTOR, DC (CD LID OPEN/CLOSE)	

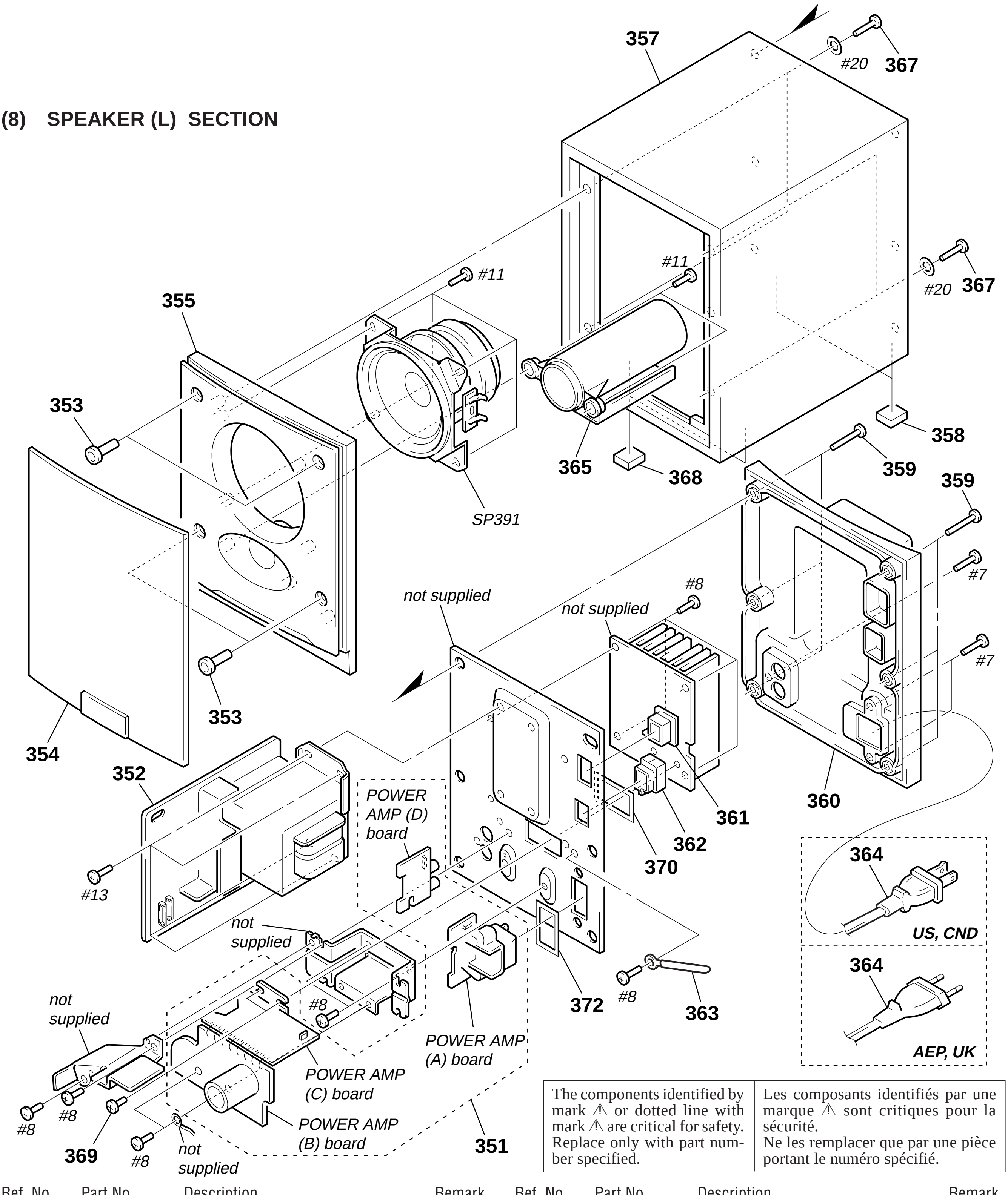
(7) OPTICAL PICK-UP SECTION (KSM-213CGP)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
⚠301	8-848-483-05	OPTICAL PICK-UP KSS-213C (for CD)	
302	2-626-908-01	SHAFT, SLED	
303	3-713-786-51	SCREW +P2X3	
304	2-627-003-02	GEAR (B) (RP)	
305	X-2646-381-1	SPINDLE MOTOR ASSY (SPINDLE) (INCLUDING M1002) (for CD)	
M1001	X-2625-769-1	SLED MOTOR (WITH GEAR) ASSY (SLED) (for CD)	

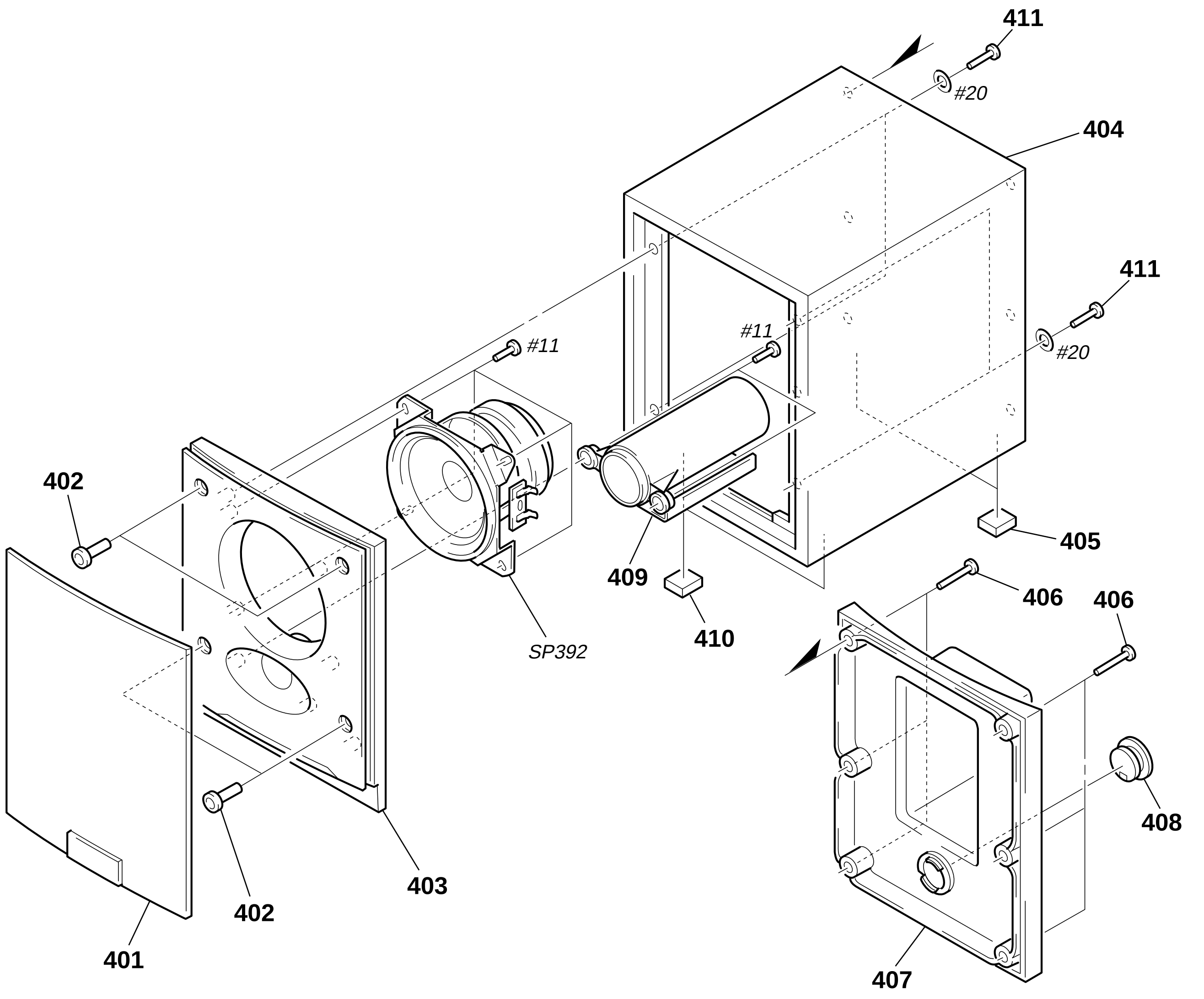
(8) SPEAKER (L) SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
* 351	A-3323-217-A	POWER AMP BOARD, COMPLETE (Including POWER AMP (A, B, C, D) board) (US, CND)	
* 351	A-3323-354-A	POWER AMP BOARD, COMPLETE (Including POWER AMP (A, B, C, D) board) (AEP, UK)	
* 352	A-3321-995-A	POWER BOARD, COMPLETE (US, CND)	
* 352	A-3322-152-A	POWER BOARD, COMPLETE (AEP, UK)	
* 353	4-963-075-01	CATCHER	
354	X-3377-661-1	NET ASSY, CHASSIS	
* 355	3-036-286-01	CABINET (FRONT) (SP) (GREY)	
* 355	3-036-286-11	CABINET (FRONT) (SP) (WOOD)	
* 357	3-036-281-01	BOX (SP), SPEAKER (GREY) (US)	
* 357	3-036-281-11	BOX (SP), SPEAKER (WOOD) (US, CND)	
* 357	3-036-281-21	BOX (SP), SPEAKER (GREY) (AEP)	
* 357	3-036-281-31	BOX (SP), SPEAKER (WOOD) (AEP, UK)	
358	3-036-274-01	FOOT, RUBBER	
359	3-029-171-01	SCREW, +B TAPPING	
* 360	3-036-284-01	CABINET (REAR) (SP-L) (GREY)	
* 360	3-036-284-11	CABINET (REAR) (SP-L) (WOOD)	
361	3-036-280-01	BUSHING (9 PIN), CORD	
* 362	3-703-244-21	BUSHING (2104), CORD	
* 363	3-703-150-11	CLAMP	
⚠364	1-783-531-21	CORD, POWER (US, CND)	
⚠364	1-575-651-11	CORD, POWER (AEP, UK)	
* 365	3-037-476-01	DUCT (SP)	
367	3-040-882-01	SCREW (+P3X18), HOLE TAPPING	
368	3-040-916-01	FOOT (F), RUBBER	
369	4-960-167-01	SCREW (3X8) (DIA. 10). +WH	
370	3-040-574-01	CUSHION (SP-L)	
* 372	3-040-737-01	CUSHION (SP OUT)	
SP391	1-529-363-11	SPEAKER (L-CH)	

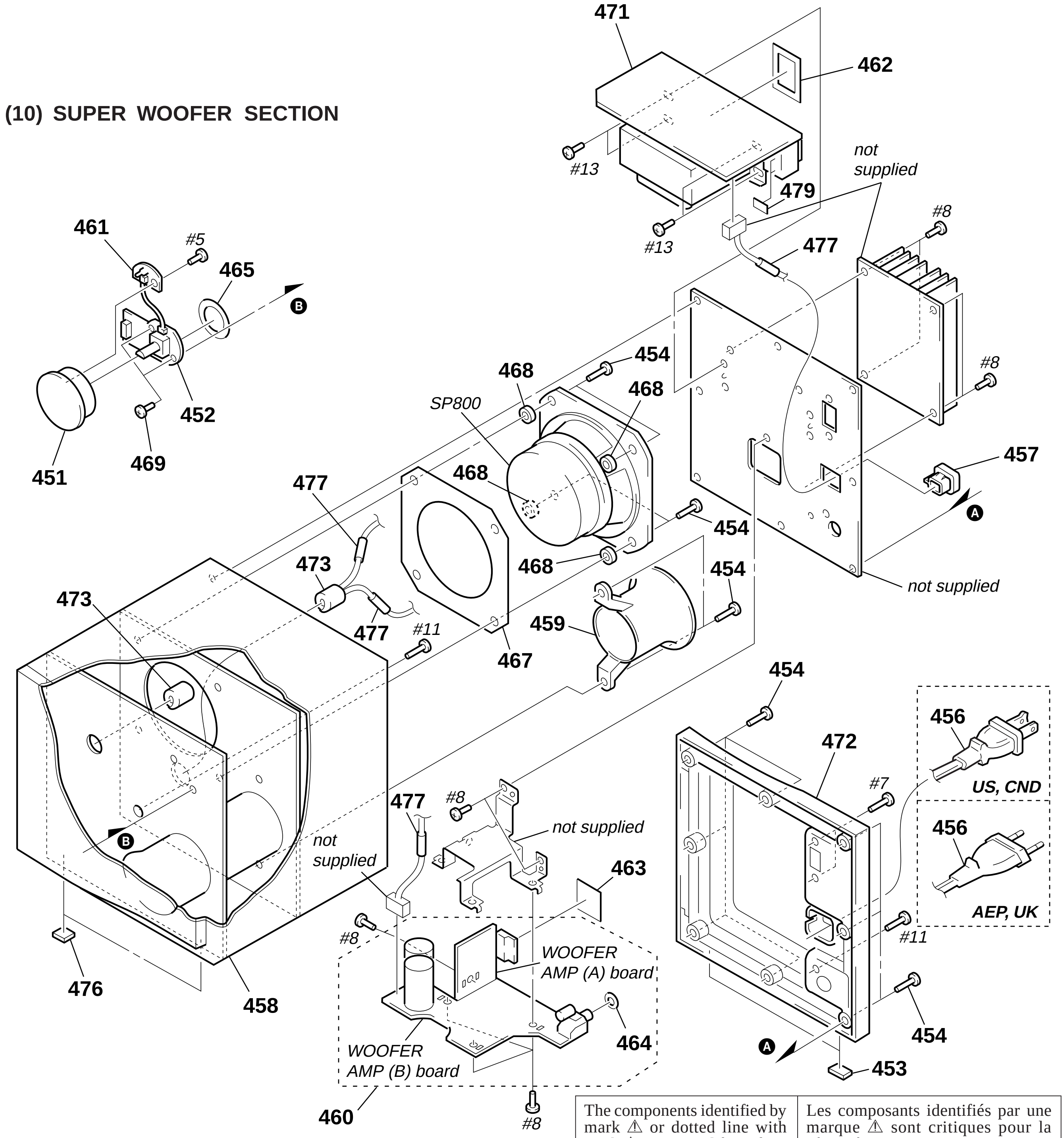
(9) SPEAKER (R) SECTION



Ref. No.	Part No.	Description	Remark
401	X-3377-661-1	NET ASSY, CHASSIS	
* 402	4-963-075-01	CATCHER	
* 403	3-036-286-01	CABINET (FRONT) (SP) (GREY)	
* 403	3-036-286-11	CABINET (FRONT) (SP) (WOOD)	
* 404	3-036-281-01	BOX (SP), SPEAKER (GREY) (US)	
* 404	3-036-281-11	BOX (SP), SPEAKER (WOOD) (US, CND)	
* 404	3-036-281-21	BOX (SP), SPEAKER (GREY) (AEP)	
* 404	3-036-281-31	BOX (SP), SPEAKER (WOOD) (AEP, UK)	

Ref. No.	Part No.	Description	Remark
405	3-036-274-01	FOOT, RUBBER	
406	3-029-171-01	SCREW, +B TAPPING	
* 407	3-036-285-01	CABINET (REAR) (SP-R) (GREY)	
408	3-904-982-01	STOPPER, CORD	
* 409	3-037-476-01	DUCT (SP)	
410	3-040-916-01	FOOT (F), RUBBER	
411	3-040-882-01	SCREW (+P3X18), HOLE TAPPING	
SP392	1-529-363-11	SPEAKER (R-CH)	

(10) SUPER WOOFER SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
451	3-036-356-01	KNOB (VOL)	
* 452	1-674-438-11	W-VOLUME BOARD (US, CND)	
* 452	1-674-438-21	W-VOLUME BOARD (AEP, UK)	
453	3-036-274-01	FOOT, RUBBER	
454	3-029-171-01	SCREW, +B TAPPING	
⚠456	1-783-531-21	CORD, POWER (US, CND)	
⚠456	1-575-651-11	CORD, POWER (CND, AEP, UK)	
* 457	3-703-244-11	BUSHING (2104), CORD	
458	X-3378-113-1	WOOFER (FRONT) ASSY, SUPER (GREY) (US)	
458	X-3378-428-1	WOOFER (FRONT) ASSY, SUPER (WOOD) (US, CND)	
458	X-3378-429-1	WOOFER (FRONT) ASSY, SUPER (GREY) (AEP)	
458	X-3378-430-1	WOOFER (FRONT) ASSY, SUPER (WOOD) (AEP, UK)	
* 459	3-036-277-01	DUCT (SW)	
* 460	A-3323-220-A	WOOFER AMP BOARD, COMPLETE (Including WOOFER AMP(A, B) board complete)(US, CND)	
* 460	A-3323-280-A	WOOFER AMP BOARD, COMPLETE (Including WOOFER AMP(A, B) board complete)(AEP, UK)	
* 461	1-674-439-11	W-LED BOARD (US, CND)	
* 461	1-674-439-21	W-LED BOARD (AEP, UK)	
462	3-038-131-01	CUSHION (AC-OUT)	
463	3-038-132-01	SHEET, INSULATING	
464	3-038-136-01	CUSHION (SIGNAL IN)	
465	3-040-317-01	SPACER (VOLUME)	
467	3-038-133-01	PACKING	
468	3-038-134-01	CUSHION (SP)	
469	4-951-620-01	SCREW (2.6X8), +BVTP	
* 471	1-674-440-11	W-POWER BOARD (US, CND)	
* 471	1-674-440-21	W-POWER BOARD (AEP, UK)	
* 472	3-036-279-01	COVER (SW) (US, CND)	
* 472	3-036-279-11	COVER (SW) (AEP, UK)	
473	3-040-639-01	SPONGE (SW)	
476	3-040-916-01	FOOT (F), RUBBER	
477	3-840-486-02	CUSHION (SPEAKER)	
479	3-040-315-01	COVER (AC OUT)	
SP800	1-529-134-11	SPEAKER (10cm) (SUPER WOOFER)	

AU/JACK

SECTION 8
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  CND : Canadian
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description				Remark
*	A-3321-988-A	AU/JACK BOARD, COMPLETE (US, CND)				
*	A-3322-141-A	AU/JACK BOARD, COMPLETE (AEP, UK)				
		************************				
		< CAPACITOR >				
C151	1-126-960-11	ELECT	1uF	20%	50V	
C152	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C153	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V	
C154	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C155	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V	
C156	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V	
C157	1-126-959-11	ELECT	0.47uF	20%	50V	
C158	1-164-345-11	CERAMIC CHIP	0.082uF	10%	25V	
C159	1-164-345-11	CERAMIC CHIP	0.082uF	10%	25V	
C160	1-126-964-11	ELECT	10uF	20%	50V	
C161	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C162	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C163	1-104-665-11	ELECT	100uF	20%	10V	
C164	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V	
C165	1-104-665-11	ELECT	100uF	20%	10V	
C166	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V	
C251	1-126-960-11	ELECT	1uF	20%	50V	
C252	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C253	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V	
C254	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C255	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V	
C256	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V	
C257	1-126-959-11	ELECT	0.47uF	20%	50V	
C258	1-164-345-11	CERAMIC CHIP	0.082uF	10%	25V	
C259	1-164-345-11	CERAMIC CHIP	0.082uF	10%	25V	
C260	1-126-964-11	ELECT	10uF	20%	50V	
C261	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C262	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C263	1-104-665-11	ELECT	100uF	20%	10V	
C264	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V	
C265	1-104-665-11	ELECT	100uF	20%	10V	
C266	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V	
C351	1-126-964-11	ELECT	10uF	20%	50V	
C352	1-128-551-11	ELECT	22uF	20%	25V	
C353	1-104-665-11	ELECT	100uF	20%	10V	
C354	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C355	1-126-959-11	ELECT	0.47uF	20%	50V	
C357	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C358	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C359	1-104-665-11	ELECT	100uF	20%	10V	
C360	1-104-665-11	ELECT	100uF	20%	10V	
C361	1-104-665-11	ELECT	100uF	20%	10V	
C362	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	(AEP, UK)
C363	1-104-664-11	ELECT	47uF	20%	16V	
C364	1-104-664-11	ELECT	47uF	20%	16V	
C365	1-126-962-11	ELECT	3.3uF	20%	50V	
C366	1-104-665-11	ELECT	100uF	20%	10V	
C367	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V	
C368	1-126-960-11	ELECT	1uF	20%	50V	
C369	1-126-963-11	ELECT	4.7uF	20%	50V	
C370	1-126-966-11	ELECT	33uF	20%	16V	
C371	1-126-937-11	ELECT	4700uF	20%	16V	
C372	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C373	1-126-926-11	ELECT	1000uF	20%	10V	
C374	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C375	1-104-665-11	ELECT	100uF	20%	10V	
C376	1-104-665-11	ELECT	100uF	20%	10V	
C378	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C379	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C380	1-104-665-11	ELECT	100uF	20%	10V	
C381	1-104-665-11	ELECT	100uF	20%	10V	
C382	1-104-665-11	ELECT	100uF	20%	10V	
C383	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C384	1-126-960-11	ELECT	1uF	20%	50V	
C385	1-126-963-11	ELECT	4.7uF	20%	50V	
C386	1-126-934-11	ELECT	220uF	20%	16V	
C387	1-104-664-11	ELECT	47uF	20%	16V	
		< CONNECTOR >				
* CN304	1-580-159-11	PIN, CONNECTOR (PC BOARD) 7P				
* CN306	1-580-154-11	PIN, CONNECTOR (PC BOARD) 2P				
* CN307	1-580-162-11	PIN, CONNECTOR (PC BOARD) 10P				
* CN308	1-564-506-11	PLUG, CONNECTOR 3P				
* CN310	1-770-249-11	HOUSING, CONNECTOR (PC BOARD)9P				(POWER INPUT)
		< DIODE >				
D351	8-719-988-61	DIODE 1SS355TE-17				
D352	8-719-988-61	DIODE 1SS355TE-17				
D353	8-719-988-61	DIODE 1SS355TE-17				
D354	8-719-988-61	DIODE 1SS355TE-17				
D355	8-719-056-85	DIODE UDZ-TE-17-8.2B				

Ref. No.	Part No.	Description	Remark
D356	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D357	8-719-056-76	DIODE UDZ-TE-17-3.6B	
D358	8-719-988-61	DIODE 1SS355TE-17	
D360	8-719-988-61	DIODE 1SS355TE-17	
D361	8-719-988-61	DIODE 1SS355TE-17	
D362	8-719-988-61	DIODE 1SS355TE-17	
D363	8-719-988-61	DIODE 1SS355TE-17	
D364	8-719-988-61	DIODE 1SS355TE-17	
		< SHORT >	
FB351	1-216-295-00	SHORT 0 (US, CND)	
FB351	1-414-196-41	INDUCTOR, CHIP 47uH (AEP, UK)	
FB352	1-216-295-00	SHORT 0 (US, CND)	
FB352	1-414-196-41	INDUCTOR, CHIP 47uH (AEP, UK)	
FB353	1-216-295-00	SHORT 0	
		< IC >	
IC351	8-759-569-64	IC BH3863F-E2	
IC352	8-759-636-55	IC M5218AFP	
IC353	8-759-702-02	IC NJM062M	
IC354	8-759-636-55	IC M5218AFP	
		< JACK >	
* J301	1-750-178-31	JACK, PIN 2P (SIGNAL OUTPUT)	
J302	1-774-785-11	JACK, PIN 1P (SIGNAL OUTPUT, WOOFER)	
		< SHORT >	
JC351	1-216-295-00	SHORT 0	
JC352	1-216-295-00	SHORT 0	
JC353	1-216-295-00	SHORT 0	
JC354	1-216-296-00	SHORT 0	
JC355	1-216-296-00	SHORT 0	
JC356	1-216-295-00	SHORT 0	
JC357	1-216-295-00	SHORT 0	
JC358	1-216-296-00	SHORT 0	
JC359	1-216-296-00	SHORT 0	
JC362	1-216-296-00	SHORT 0	
JC363	1-216-296-00	SHORT 0	
JC364	1-216-296-00	SHORT 0	
		< IC LINK >	
PS301	1-532-637-00	LINK, IC (AEP, UK)	
		< TRANSISTOR >	
Q151	8-729-920-31	TRANSISTOR DTC343TK	
Q152	8-729-920-31	TRANSISTOR DTC343TK	
Q154	8-729-920-31	TRANSISTOR DTC343TK	
Q251	8-729-920-31	TRANSISTOR DTC343TK	
Q252	8-729-920-31	TRANSISTOR DTC343TK	
Q254	8-729-920-31	TRANSISTOR DTC343TK	
Q351	8-729-920-41	TRANSISTOR FMC3	
Q352	8-729-920-31	TRANSISTOR DTC343TK	
Q353	8-729-920-41	TRANSISTOR FMC3	
Q354	8-729-922-62	TRANSISTOR 2SD1760F5-TLQ	
Q355	8-729-903-46	TRANSISTOR 2SB1132-P	
Q356	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q357	8-729-021-82	TRANSISTOR 2SD2396K	
Q358	8-729-027-46	TRANSISTOR DTC114YKA-T146	
Q359	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q360	8-729-920-41	TRANSISTOR FMC3	
Q361	8-729-920-31	TRANSISTOR DTC343TK	
		< RESISTOR >	
R151	1-216-121-00	RES, CHIP 1M 5% 1/10W	
R152	1-216-121-00	RES, CHIP 1M 5% 1/10W	
R153	1-216-093-11	RES, CHIP 68K 5% 1/10W	
R154	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R155	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R156	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R157	1-216-121-00	RES, CHIP 1M 5% 1/10W	
R158	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R159	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R160	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R161	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R163	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R164	1-216-029-00	METAL CHIP 150 5% 1/10W	
R167	1-216-065-00	RES, CHIP 4.7K 5% 1/10W	
R168	1-216-308-00	METAL CHIP 4.7 5% 1/10W	
R169	1-216-013-00	METAL CHIP 33 5% 1/10W	
R170	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R251	1-216-121-00	RES, CHIP 1M 5% 1/10W	
R252	1-216-121-00	RES, CHIP 1M 5% 1/10W	
R253	1-216-093-11	RES, CHIP 68K 5% 1/10W	
R254	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R255	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R256	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R257	1-216-121-00	RES, CHIP 1M 5% 1/10W	
R258	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R259	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R260	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R261	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R263	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R264	1-216-029-00	METAL CHIP 150 5% 1/10W	
R267	1-216-065-00	RES, CHIP 4.7K 5% 1/10W	
R268	1-216-308-00	METAL CHIP 4.7 5% 1/10W	
R269	1-216-013-00	METAL CHIP 33 5% 1/10W	
R270	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R351	1-216-097-00	RES, CHIP 100K 5% 1/10W	
R352	1-216-295-00	SHORT 0	
R353	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R354	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R355	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R356	1-216-065-00	RES, CHIP 4.7K 5% 1/10W	
R357	1-216-295-00	SHORT 0	
R358	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R359	1-216-065-00	RES, CHIP 4.7K 5% 1/10W	
R360	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R361	1-216-065-00	RES, CHIP 4.7K 5% 1/10W	
R362	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R363	1-216-295-00	SHORT 0	
R364	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R365	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R366	1-216-065-00	RES, CHIP 4.7K 5% 1/10W	
R367	1-216-214-00	RES, CHIP 4.7K 5% 1/8W	

AU/JACK BD

Ref. No.	Part No.	Description			Remark
R368	1-216-121-00	RES, CHIP	1M	5%	1/10W
R369	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R370	1-216-105-00	RES, CHIP	220K	5%	1/10W
R371	1-216-037-00	METAL CHIP	330	5%	1/10W
R372	1-216-089-00	RES, CHIP	47K	5%	1/10W
R374	1-216-033-00	METAL CHIP	220	5%	1/10W
R375	1-216-047-00	RES, CHIP	820	5%	1/10W
R376	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R377	1-216-051-00	METAL CHIP	1.2K	5%	1/10W (AEP, UK)
R377	1-216-065-00	METAL CHIP	4.7K	5%	1/10W (US, CND)
R378	1-216-089-00	RES, CHIP	47K	5%	1/10W

****

* A-4699-893-A BD BOARD, COMPLETE

****

< CAPACITOR >

Ref. No.	Part No.	Description			Remark
C101	1-125-822-11	TANTALUM	10uF	20%	10V
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C103	1-125-822-11	TANTALUM	10uF	20%	10V
C104	1-125-822-11	TANTALUM	10uF	20%	10V
C105	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C106	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C107	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C108	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C109	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C111	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C112	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C113	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C115	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C116	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C117	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C118	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C119	1-125-822-11	TANTALUM	10uF	20%	10V
C121	1-125-822-11	TANTALUM	10uF	20%	10V
C122	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C123	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C124	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C127	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C128	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C129	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C130	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C131	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C132	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C133	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C134	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C135	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C136	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C142	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C143	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C144	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C146	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C151	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C152	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C153	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C156	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C158	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C160	1-104-601-11	ELECT CHIP	10uF	20%	10V
C161	1-104-601-11	ELECT CHIP	10uF	20%	10V
C163	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C164	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C167	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C168	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C169	1-125-822-11	TANTALUM	10uF	20%	10V
C171	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C181	1-104-913-11	TANTALUM CHIP	10uF	20%	16V
C183	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C184	1-117-970-11	ELECT CHIP	22uF	20%	10V
C185	1-164-611-11	CERAMIC CHIP	0.001uF	10%	500V
C187	1-104-913-11	TANTALUM CHIP	10uF	20%	16V
C188	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C189	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C190	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C191	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C196	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C197	1-163-038-00	CERAMIC CHIP	0.1uF		25V

< CONNECTOR >

Ref. No.	Part No.	Description
CN101	1-569-479-51	CONNECTOR, FPC 21P
CN102	1-784-833-21	CONNECTOR,FFC (LIF (NON-ZIF)) 21P
CN103	1-784-834-21	CONNECTOR,FFC (LIF (NON-ZIF)) 23P
CN104	1-770-687-11	CONNECTOR, FFC/FPC 4P
CN110	1-695-440-21	PIN, CONNECTOR (PC BOARD) 6P

< DIODE >

Ref. No.	Part No.	Description
D101	8-719-988-61	DIODE 1SS355TE-17
D181	8-719-046-86	DIODE F1J6TP
D183	8-719-046-86	DIODE F1J6TP

< IC/TRANSISTOR >

Ref. No.	Part No.	Description
IC101	8-752-080-95	IC CXA2523AR
IC103	8-729-903-10	TRANSISTOR FMW1-T-148
IC121	8-752-389-44	IC CXD2654R
IC123	8-759-096-87	IC TC7WU04FU (TE12R)
IC124	8-759-334-38	IC MSM51V4400-70TS-K
IC152	8-759-430-25	IC BH6511FS-E2
IC171	8-759-487-04	IC BR24C02F-E2
IC181	8-759-481-17	IC MC74ACT08DTR2
IC192	8-759-460-72	IC BA033FP-E2

< COIL/SHORT >

Ref. No.	Part No.	Description	
L101	1-414-813-11	FERRITE	0uH
L102	1-414-813-11	FERRITE	0uH
L103	1-414-813-11	FERRITE	0uH
L105	1-414-813-11	FERRITE	0uH
L106	1-414-813-11	FERRITE	0uH
L121	1-414-813-11	FERRITE	0uH
L122	1-414-813-11	FERRITE	0uH
L151	1-412-029-11	INDUCTOR CHIP	10uH
L152	1-412-029-11	INDUCTOR CHIP	10uH
L153	1-412-032-11	INDUCTOR CHIP	100uH
L154	1-412-032-11	INDUCTOR CHIP	100uH
L161	1-414-813-11	FERRITE	0uH
L162	1-414-813-11	FERRITE	0uH
L181	1-216-295-00	SHORT	0

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q101	8-729-028-91	TRANSISTOR	RT1P441M-TP-1		
Q102	8-729-026-53	TRANSISTOR	2SA1576A-T106-QR		
Q103	8-729-028-99	TRANSISTOR	RT1N144M-TP-1		
Q104	8-729-028-99	TRANSISTOR	RT1N144M-TP-1		
Q162	8-729-101-07	TRANSISTOR	2SB798-T1DK		
Q163	8-729-028-91	TRANSISTOR	RT1P441M-TP-1		
Q181	8-729-018-75	FET	2SJ278MYTR		
Q182	8-729-017-65	FET	2SK1764KYTR		
		< RESISTOR >			
R103	1-216-049-11	RES, CHIP	1K	5%	1/10W
R104	1-216-073-00	METAL CHIP	10K	5%	1/10W
R105	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R106	1-216-133-00	METAL CHIP	3.3M	5%	1/10W
R107	1-216-113-00	METAL CHIP	470K	5%	1/10W
R109	1-216-295-00	SHORT	0		
R110	1-216-073-00	METAL CHIP	10K	5%	1/10W
R111	1-216-295-00	SHORT	0		
R112	1-216-089-00	RES, CHIP	47K	5%	1/10W
R113	1-216-049-11	RES, CHIP	1K	5%	1/10W
R115	1-216-049-11	RES, CHIP	1K	5%	1/10W
R117	1-216-113-00	METAL CHIP	470K	5%	1/10W
R120	1-216-025-00	RES, CHIP	100	5%	1/10W
R121	1-216-097-00	RES, CHIP	100K	5%	1/10W
R123	1-216-295-00	SHORT	0		
R124	1-216-025-00	RES, CHIP	100	5%	1/10W
R125	1-216-025-00	RES, CHIP	100	5%	1/10W
R127	1-216-025-00	RES, CHIP	100	5%	1/10W
R129	1-216-295-00	SHORT	0		
R130	1-216-295-00	SHORT	0		
R131	1-216-073-00	METAL CHIP	10K	5%	1/10W
R132	1-216-097-00	RES, CHIP	100K	5%	1/10W
R133	1-216-117-00	METAL CHIP	680K	5%	1/10W
R134	1-216-049-11	RES, CHIP	1K	5%	1/10W
R135	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R136	1-216-049-11	RES, CHIP	1K	5%	1/10W
R137	1-216-295-00	SHORT	0		
R140	1-216-029-00	METAL CHIP	150	5%	1/10W
R142	1-216-073-00	METAL CHIP	10K	5%	1/10W
R143	1-216-073-00	METAL CHIP	10K	5%	1/10W
R144	1-216-025-00	RES, CHIP	100	5%	1/10W
R145	1-216-073-00	METAL CHIP	10K	5%	1/10W
R146	1-216-037-00	METAL CHIP	330	5%	1/10W
R147	1-216-025-00	RES, CHIP	100	5%	1/10W
R148	1-216-045-00	METAL CHIP	680	5%	1/10W
R149	1-216-073-00	METAL CHIP	10K	5%	1/10W
R150	1-216-295-00	SHORT	0		
R151	1-216-073-00	METAL CHIP	10K	5%	1/10W
R152	1-216-073-00	METAL CHIP	10K	5%	1/10W
R158	1-216-097-00	RES, CHIP	100K	5%	1/10W
R159	1-216-097-00	RES, CHIP	100K	5%	1/10W
R160	1-216-295-00	SHORT	0		
R161	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R162	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R163	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R164	1-216-045-00	METAL CHIP	680	5%	1/10W

Ref. No.	Part No.	Description			Remark
R165	1-216-097-00	RES, CHIP	100K	5%	1/10W
R166	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R167	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R169	1-219-724-11	METAL CHIP	1	1%	1/4W
R170	1-216-073-00	METAL CHIP	10K	5%	1/10W
R171	1-216-073-00	METAL CHIP	10K	5%	1/10W
R173	1-216-121-00	RES, CHIP	1M	5%	1/10W
R175	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R177	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R179	1-216-085-00	METAL CHIP	33K	5%	1/10W
R180	1-216-073-00	METAL CHIP	10K	5%	1/10W
R182	1-216-089-00	RES, CHIP	47K	5%	1/10W
R183	1-216-089-00	RES, CHIP	47K	5%	1/10W
R184	1-216-073-00	METAL CHIP	10K	5%	1/10W
R185	1-216-081-00	METAL CHIP	22K	5%	1/10W
R186	1-216-089-00	RES, CHIP	47K	5%	1/10W
R188	1-216-073-00	METAL CHIP	10K	5%	1/10W
R189	1-216-073-00	METAL CHIP	10K	5%	1/10W
R190	1-216-073-00	METAL CHIP	10K	5%	1/10W
R195	1-216-073-00	METAL CHIP	10K	5%	1/10W
R196	1-216-295-00	SHORT	0		
R197	1-216-295-00	SHORT	0		
R198	1-216-296-00	SHORT	0		
		< SWITCH >			
S101	1-762-596-21	SWITCH, PUSH (1 KEY) (LIMIT IN)			
S102	1-762-148-21	SWITCH, PUSH (2 KEY) (REFLECT RATE/PROTECT DETECT)			

****

*	A-3321-991-A	CD MOTOR BOARD, COMPLETE			
		**************************			
		< CAPACITOR >			
C1001	1-126-934-11	ELECT	220uF	20%	16V
C1002	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C1003	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C1004	1-163-038-00	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN1001	1-563-614-31	HOUSING, CONNECTOR 11P			
		< IC >			
IC1001	8-759-591-65	IC BA6892FP-E2			
IC1002	8-759-344-00	IC NJM2100E (TE2)			
		< TRANSISTOR >			
Q1001	8-729-900-53	TRANSISTOR	DTC114EK		
Q1002	8-729-027-60	TRANSISTOR	DTC144TKA-T146		
Q1003	8-729-027-56	TRANSISTOR	DTC143TKA-T146		
Q1004	8-729-027-60	TRANSISTOR	DTC144TKA-T146		
Q1005	8-729-027-56	TRANSISTOR	DTC143TKA-T146		
Q1006	8-729-903-46	TRANSISTOR	2SB1132-P		
Q1007	8-729-027-46	TRANSISTOR	DTC114YKA-T146		
		< RESISTOR >			
R1001	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R1002	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R1003	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1004	1-216-081-00	METAL CHIP	22K	5%	1/10W
R1005	1-216-099-00	METAL CHIP	120K	5%	1/10W
R1006	1-216-085-00	METAL CHIP	33K	5%	1/10W
R1007	1-216-081-00	METAL CHIP	22K	5%	1/10W
R1010	1-216-089-00	RES, CHIP	47K	5%	1/10W
R1011	1-216-097-00	RES, CHIP	100K	5%	1/10W
R1012	1-216-089-00	RES, CHIP	47K	5%	1/10W
R1013	1-216-198-00	RES, CHIP	1K	5%	1/8W
		< SWITCH >			
S1001	1-762-812-11	SWITCH, LEAF (LIMIT)			

****

Ref. No.	Part No.	Description			Remark
*	A-3321-992-A	CD O/C BOARD, COMPLETE (US, CND)			
*	A-3322-149-A	CD O/C BOARD, COMPLETE (AEP, UK)			
		************************			
		< CAPACITOR >			
C789	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C795	1-126-925-11	ELECT	470uF	20%	10V
C796	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C797	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
		< CONNECTOR >			
* CN711	1-580-159-11	PIN, CONNECTOR (PC BOARD) 7P			
* CN712	1-580-163-11	PIN, CONNECTOR (PC BOARD) 2P			
		< DIODE >			
D761	8-719-988-61	DIODE 1SS355TE-17			
D762	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC711	8-759-565-65	IC BA6289F-E2			
		< SHORT >			
JC791	1-216-296-00	SHORT	0 (US, CND)		
JC792	1-216-296-00	SHORT	0 (US, CND)		
JC793	1-216-296-00	SHORT	0 (US, CND)		
		< TRANSISTOR >			
Q762	8-729-027-26	TRANSISTOR	DTA114YKA-T146		
Q763	8-729-027-46	TRANSISTOR	DTC114YKA-T146		
Q764	8-729-903-46	TRANSISTOR	2SB1132-P		
Q765	8-729-027-46	TRANSISTOR	DTC114YKA-T146		
Q766	8-729-027-46	TRANSISTOR	DTC114YKA-T146		
		< RESISTOR >			
R728	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R736	1-216-089-00	RES, CHIP	47K	5%	1/10W
R737	1-216-089-00	RES, CHIP	47K	5%	1/10W
R738	1-216-295-00	SHORT	0		
R744	1-216-081-00	METAL CHIP	22K	5%	1/10W
R746	1-216-073-00	METAL CHIP	10K	5%	1/10W
R747	1-216-081-00	METAL CHIP	22K	5%	1/10W
R748	1-216-079-00	METAL CHIP	18K	5%	1/10W
R749	1-216-079-00	METAL CHIP	18K	5%	1/10W
R759	1-216-089-00	RES, CHIP	47K	5%	1/10W
⚠R761	1-212-954-11	FUSIBLE	6.8	5%	1/2W F
R779	1-216-041-00	METAL CHIP	470	5%	1/10W
		< SWITCH >			
S761	1-572-126-21	SWITCH, PUSH (1 KEY) (CD LID OPEN DETECT)			
S762	1-572-126-21	SWITCH, PUSH (1 KEY) (CD LID CLOSE DETECT)			

****

Ref. No.	Part No.	Description			Remark
*	A-3323-211-A	DG BOARD, COMPLETE (US, CND)			
*	A-3323-402-A	DG BOARD, COMPLETE (AEP, UK)			
		*******************			
		< CAPACITOR >			
C601	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C602	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C604	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C605	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C606	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C607	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C608	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C609	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C610	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C611	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C612	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C613	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C614	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C615	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C616	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C617	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C619	1-126-207-11	ELECT CHIP	33uF	20%	4V
C620	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C621	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C622	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C626	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C627	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C628	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C629	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C632	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C633	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C634	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C635	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C637	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C639	1-124-779-00	ELECT CHIP	10uF	20%	16V
C640	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C641	1-109-982-11	CERAMIC CHIP	1uF	10%	10V (AEP, UK)
C641	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (US, CND)
C642	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C644	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C645	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C646	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C650	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C651	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C655	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
C657	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C659	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C660	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C662	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C663	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C664	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C665	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C668	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C669	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C670	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C672	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C673	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C675	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C676	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C680	1-163-224-11	CERAMIC CHIP	7PF	0.25PF	50V
C681	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C682	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C683	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C684	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C685	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C686	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C687	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C689	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C690	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C691	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C692	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C693	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C694	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C695	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C696	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C697	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C698	1-125-837-11	CERAMIC CHIP	1uF	10%	10V (AEP, UK)
C699	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
* CN601	1-793-115-21	CONNECTOR, FFC/FPC 21P			
* CN602	1-793-116-21	CONNECTOR, FFC/FPC 23P			
* CN603	1-580-055-21	PIN, CONNECTOR (SMD) 2P			
CN604	1-785-370-11	CONNECTOR, FFC/FPC 26P			
CN605	1-784-687-41	PIN, CONNECTOR (PC BOARD) 7P			
		< DIODE >			
D602	8-719-988-61	DIODE 1SS355TE-17			
D603	8-719-988-61	DIODE 1SS355TE-17			
D604	8-719-976-99	DIODE DTZ5.1B			
		< FERRITE BEAD/RESISTOR >			
FB601	1-500-445-21	FERRITE	0uH		
FB602	1-216-821-11	METAL CHIP	1K	5%	1/16W
FB603	1-216-821-11	METAL CHIP	1K	5%	1/16W
FB604	1-216-295-00	SHORT	0		
FB605	1-216-821-11	METAL CHIP	1K	5%	1/16W
FB606	1-216-295-00	SHORT	0		
FB607	1-500-445-21	FERRITE	0uH		
FB608	1-216-821-11	METAL CHIP	1K	5%	1/16W
FB609	1-216-821-11	METAL CHIP	1K	5%	1/16W
FB610	1-412-985-11	INDUCTOR	3.3uH		

Ref. No.	Part No.	Description			Remark
FB611	1-500-445-21	FERRITE	0uH		
FB612	1-469-185-11	FERRITE	0uH		
FB613	1-500-445-21	FERRITE	0uH		
FB614	1-500-445-21	FERRITE	0uH		
FB615	1-500-445-21	FERRITE	0uH		
FB616	1-500-445-21	FERRITE	0uH		
FB617	1-500-445-21	FERRITE	0uH		
FB618	1-500-445-21	FERRITE	0uH		
FB619	1-500-445-21	FERRITE	0uH		
FB620	1-500-445-21	FERRITE	0uH		
FB621	1-500-445-21	FERRITE	0uH		
FB622	1-500-445-21	FERRITE	0uH		
FB623	1-500-445-21	FERRITE	0uH		
FB624	1-500-445-21	FERRITE	0uH		
FB625	1-500-445-21	FERRITE	0uH		
FB626	1-500-445-21	FERRITE	0uH		
FB627	1-216-295-00	SHORT	0		
FB628	1-500-445-21	FERRITE	0uH		
FB629	1-500-445-21	FERRITE	0uH		
FB630	1-469-125-21	FERRITE	0uH		
FB631	1-500-445-21	FERRITE	0uH		
FB632	1-500-445-21	FERRITE	0uH		
FB633	1-469-185-11	FERRITE	0uH		
FB634	1-469-185-11	FERRITE	0uH		
FB636	1-500-445-21	FERRITE	0uH		
FB637	1-500-445-21	FERRITE	0uH		
FB638	1-500-445-21	FERRITE	0uH		
FB639	1-500-445-21	FERRITE	0uH		
FB640	1-500-445-21	FERRITE	0uH		
FB641	1-500-445-21	FERRITE	0uH		
FB642	1-500-445-21	FERRITE	0uH		
FB643	1-500-445-21	FERRITE	0uH		
FB644	1-500-445-21	FERRITE	0uH		
FB645	1-500-445-21	FERRITE	0uH		
FB646	1-500-445-21	FERRITE	0uH		
FB647	1-500-445-21	FERRITE	0uH		
FB648	1-216-295-00	SHORT	0		
FB649	1-500-445-21	FERRITE	0uH		
FB650	1-216-821-11	METAL CHIP	1K	5%	1/16W
FB651	1-216-821-11	METAL CHIP	1K	5%	1/16W
FB652	1-216-295-00	SHORT	0		
FB654	1-500-445-21	FERRITE	0uH		
FB655	1-469-185-11	FERRITE	0uH		
FB656	1-469-185-11	FERRITE	0uH		
FB657	1-469-185-11	FERRITE	0uH		
FB660	1-500-445-21	FERRITE	0uH		
FB661	1-500-445-21	FERRITE	0uH		
FB662	1-500-445-21	FERRITE	0uH		
FB663	1-500-445-21	FERRITE	0uH		
FB664	1-500-445-21	FERRITE	0uH		
FB665	1-500-445-21	FERRITE	0uH		
FB666	1-216-815-11	METAL CHIP	330	5%	1/16W
FB671	1-500-445-21	FERRITE	0uH		
FB672	1-500-445-21	FERRITE	0uH		
FB673	1-500-445-21	FERRITE	0uH		
		< FILTER/FERRITE BEAD >			
FL601	1-239-901-21	FERRITE	0uH		

Ref. No.	Part No.	Description				Remark
FL602	1-239-901-21	FERRITE	0uH			
FL603	1-239-899-21	FILTER, CHIP EMI				
FL604	1-239-899-21	FILTER, CHIP EMI				
FL605	1-239-899-21	FILTER, CHIP EMI				
FL606	1-239-899-21	FILTER, CHIP EMI				
* FL607	1-125-971-21	FILTER, 3 TERMINAL NOISE				
* FL608	1-125-971-21	FILTER, 3 TERMINAL NOISE				
* FL611	1-125-971-21	FILTER, 3 TERMINAL NOISE				
* FL612	1-125-971-21	FILTER, 3 TERMINAL NOISE				
* FL619	1-125-971-21	FILTER, 3 TERMINAL NOISE				
* FL620	1-125-971-21	FILTER, 3 TERMINAL NOISE				
		< IC >				
IC601	8-759-599-72	IC RU8X12MF-0031				
IC602	8-759-040-83	IC BA6287F				
IC603	8-759-561-36	IC PCM3003E/T2				
IC604	8-759-243-19	IC TC7SU04F				
IC605	8-759-591-61	IC TC7WHU04FU				
IC606	8-759-447-77	IC TC7WH74FU (TR12R)				
		< RESISTOR/FERRITE BEAD >				
JC601	1-216-049-11	RES, CHIP	1K	5%	1/10W	
JC602	1-216-295-00	SHORT	0			
JC603	1-216-049-11	RES, CHIP	1K	5%	1/10W	
JC605	1-216-295-00	SHORT	0			
JC606	1-216-296-00	SHORT	0			
JC607	1-216-295-00	SHORT	0			
JC608	1-216-295-00	SHORT	0			
JC609	1-216-821-11	METAL CHIP	1K	5%	1/16W	
JC610	1-216-821-11	METAL CHIP	1K	5%	1/16W	
JC611	1-216-821-11	METAL CHIP	1K	5%	1/16W	
JC612	1-216-821-11	METAL CHIP	1K	5%	1/16W	
JC613	1-216-295-00	SHORT	0			
JC614	1-216-049-11	RES, CHIP	1K	5%	1/10W	
JC615	1-216-295-00	SHORT	0			
JC616	1-216-295-00	SHORT	0			
JC617	1-216-295-00	SHORT	0			
JC618	1-216-295-00	SHORT	0			
JC619	1-216-295-00	SHORT	0			
JC620	1-216-295-00	SHORT	0			
JC621	1-216-864-11	METAL CHIP	0	5%	1/16W	
JC622	1-216-296-00	SHORT	0			
JC623	1-216-295-00	SHORT	0			
JC626	1-216-295-00	SHORT	0			
JC627	1-216-295-00	SHORT	0			
JC631	1-216-864-11	METAL CHIP	0	5%	1/16W	
JC632	1-216-295-00	SHORT	0			
JC634	1-216-295-00	SHORT	0			
JC635	1-216-295-00	SHORT	0			
JC639	1-500-445-21	FERRITE	0uH			
JC641	1-216-295-00	SHORT	0			
JC651	1-216-295-00	SHORT	0			
JC652	1-500-445-21	FERRITE	0uH			
		< COIL >				
L601	1-414-521-21	INDUCTOR CHIP	10uH			
L602	1-414-398-11	INDUCTOR	10uH			

Ref. No.	Part No.	Description				Remark
L603	1-414-398-11	INDUCTOR	10uH			
L604	1-414-398-11	INDUCTOR	10uH			
L605	1-414-398-11	INDUCTOR	10uH			
L606	1-414-398-11	INDUCTOR	10uH			
L607	1-414-398-11	INDUCTOR	10uH			
L608	1-414-398-11	INDUCTOR	10uH			
L609	1-414-398-11	INDUCTOR	10uH			
L610	1-414-398-11	INDUCTOR	10uH			
L611	1-416-107-21	INDUCTOR	0uH			
L612	1-414-521-21	INDUCTOR CHIP	10uH			
L613	1-414-398-11	INDUCTOR	10uH			
L614	1-414-398-11	INDUCTOR	10uH			
L615	1-500-445-21	FERRITE	0uH			
L616	1-500-445-21	FERRITE	0uH			
L617	1-414-766-21	INDUCTOR CHIP	0uH			
L618	1-500-445-21	FERRITE	0uH			
L619	1-414-398-11	INDUCTOR	10uH			
L620	1-414-398-11	INDUCTOR	10uH			
L621	1-414-521-21	INDUCTOR CHIP	10uH			
L622	1-414-521-21	INDUCTOR CHIP	10uH			
		< TRANSISTOR >				
Q603	8-729-402-84	TRANSISTOR	XN4601			
Q604	8-729-402-84	TRANSISTOR	XN4601			
Q610	8-729-027-46	TRANSISTOR	DTC114YKA-T146			
Q611	8-729-031-43	TRANSISTOR	IMD9A-T108			
Q612	8-729-101-07	TRANSISTOR	2SB798-DL			
Q616	8-729-027-46	TRANSISTOR	DTC114YKA-T146			
Q617	8-729-019-72	TRANSISTOR	2SB1260			
Q620	8-729-046-16	TRANSISTOR	UMG5N-TR			
		< RESISTOR/COIL >				
R601	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R602	1-216-049-11	RES, CHIP	1K	5%	1/10W	
R603	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R604	1-500-329-11	INDUCTOR CHIP	0uH			
R605	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R606	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R607	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R608	1-216-833-11	RES, CHIP	10K	5%	1/16W	
R609	1-216-097-00	RES, CHIP	100K	5%	1/10W	
R610	1-216-097-00	RES, CHIP	100K	5%	1/10W	
R611	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R612	1-216-097-00	RES, CHIP	100K	5%	1/10W	
R613	1-216-833-11	RES, CHIP	10K	5%	1/16W	
R614	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R615	1-216-833-11	RES, CHIP	10K	5%	1/16W	
R616	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R617	1-216-809-11	METAL CHIP	100	5%	1/16W	
R618	1-216-809-11	METAL CHIP	100	5%	1/16W	
R619	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R620	1-216-851-11	METAL CHIP	330K	5%	1/16W	
R621	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R622	1-216-833-11	RES, CHIP	10K	5%	1/16W	
R623	1-216-833-11	RES, CHIP	10K	5%	1/16W	
R624	1-216-833-11	RES, CHIP	10K	5%	1/16W	
R625	1-216-833-11	RES, CHIP	10K	5%	1/16W	

Ref. No.	Part No.	Description			Remark
R626	1-216-073-00	METAL CHIP	10K	5%	1/10W
R627	1-216-089-00	RES, CHIP	47K	5%	1/10W
R628	1-216-841-11	METAL CHIP	47K	5%	1/16W
R629	1-216-833-11	RES, CHIP	10K	5%	1/16W
R630	1-216-833-11	RES, CHIP	10K	5%	1/16W
R631	1-216-821-11	METAL CHIP	1K	5%	1/16W
R632	1-216-821-11	METAL CHIP	1K	5%	1/16W
R633	1-216-833-11	RES, CHIP	10K	5%	1/16W
R634	1-216-833-11	RES, CHIP	10K	5%	1/16W
R636	1-216-851-11	METAL CHIP	330K	5%	1/16W
R637	1-216-109-00	METAL CHIP	330K	5%	1/10W
R638	1-216-841-11	METAL CHIP	47K	5%	1/16W
R639	1-216-847-11	METAL CHIP	150K	5%	1/16W
R640	1-216-821-11	METAL CHIP	1K	5%	1/16W
R641	1-216-843-11	METAL CHIP	68K	5%	1/16W
R643	1-216-809-11	METAL CHIP	100	5%	1/16W
R644	1-216-833-11	RES, CHIP	10K	5%	1/16W
R646	1-216-041-00	METAL CHIP	470	5%	1/10W
R647	1-216-089-00	RES, CHIP	47K	5%	1/10W
R648	1-216-833-11	RES, CHIP	10K	5%	1/16W
R649	1-216-835-11	METAL CHIP	15K	5%	1/16W
R650	1-216-833-11	RES, CHIP	10K	5%	1/16W
R651	1-216-835-11	METAL CHIP	15K	5%	1/16W
R652	1-500-329-11	INDUCTOR CHIP	0uH		
R653	1-216-073-00	METAL CHIP	10K	5%	1/10W
R654	1-216-833-11	RES, CHIP	10K	5%	1/16W
R655	1-216-073-00	METAL CHIP	10K	5%	1/10W
R656	1-216-833-11	RES, CHIP	10K	5%	1/16W
R657	1-216-238-91	RES, CHIP	47K	5%	1/8W
R658	1-216-853-11	METAL CHIP	470K	5%	1/16W
R659	1-216-817-11	METAL CHIP	470	5%	1/16W
R660	1-216-841-11	METAL CHIP	47K	5%	1/16W
R661	1-216-857-11	METAL CHIP	1M	5%	1/16W
R662	1-216-037-00	METAL CHIP	330	5%	1/10W
R663	1-216-821-11	METAL CHIP	1K	5%	1/16W
R664	1-216-821-11	METAL CHIP	1K	5%	1/16W
R665	1-216-073-00	METAL CHIP	10K	5%	1/10W
R666	1-500-329-11	INDUCTOR CHIP	0uH		
R667	1-500-329-11	INDUCTOR CHIP	0uH		
R668	1-216-815-11	METAL CHIP	330	5%	1/16W
R669	1-216-857-11	METAL CHIP	1M	5%	1/16W
R670	1-216-841-11	METAL CHIP	47K	5%	1/16W
R671	1-216-821-11	METAL CHIP	1K	5%	1/16W
R672	1-216-821-11	METAL CHIP	1K	5%	1/16W
R674	1-216-857-11	METAL CHIP	1M	5%	1/16W
R691	1-216-821-11	METAL CHIP	1K	5%	1/16W
R692	1-216-025-00	RES, CHIP	100	5%	1/10W
R693	1-216-025-00	RES, CHIP	100	5%	1/10W
R694	1-216-821-11	METAL CHIP	1K	5%	1/16W
R695	1-216-821-11	METAL CHIP	1K	5%	1/16W
		< VIBRATOR >			
X601	1-760-174-11	VIBRATOR, CERAMIC (12MHz)			
X602	1-781-183-11	VIBRATOR, CRYSTAL (32.768kHz)			
X603	1-760-173-11	VIBRATOR, CRYSTAL (45.1584MHz)			

****

Ref. No.	Part No.	Description			Remark
		LAMP BOARD			
		***********			
		(Included in LCD board complete)			
		< PILOT LAMP >			
PL553	1-517-848-11	LAMP, PILOT (LCD BACK LIGHT)			
PL554	1-517-848-11	LAMP, PILOT (LCD BACK LIGHT)			
PL555	1-517-848-11	LAMP, PILOT (LCD BACK LIGHT)			

****

Ref. No.	Part No.	Description			Remark
*	A-3323-215-A	LCD BOARD, COMPLETE (US, CND)			
*	A-3323-275-A	LCD BOARD, COMPLETE (AEP, UK)			
		********************			
		(Including LAMP board complete)			
		< CAPACITOR >			
C559	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C560	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C561	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C562	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C563	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C564	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C565	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C566	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C567	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C568	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C569	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C570	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C571	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C572	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C573	1-104-665-11	ELECT	100uF	20%	10V
		< CONNECTOR >			
CN552	1-691-068-21	HOUSING, CONNECTOR 9P			
CN553	1-563-624-11	HOUSING, CONNECTOR 21P			
		< SHORT >			
JC556	1-216-295-00	SHORT	0		
		< RESISTOR >			
R576	1-216-114-00	RES, CHIP	510K	5%	1/10W
R577	1-216-111-00	METAL CHIP	390K	5%	1/10W
R580	1-216-049-11	RES, CHIP	1K	5%	1/10W
R581	1-216-049-11	RES, CHIP	1K	5%	1/10W
R582	1-216-049-11	RES, CHIP	1K	5%	1/10W
R583	1-216-049-11	RES, CHIP	1K	5%	1/10W
R584	1-216-049-11	RES, CHIP	1K	5%	1/10W
		< VARIABLE RESISTOR >			
RV550	1-230-726-11	RES, ADJ, CARBON 470K			

****

Ref. No.	Part No.	Description			Remark
*	1-674-446-11	LINE IN BOARD			
		*************			
		< CONNECTOR >			
CN305	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D308	8-719-988-61	DIODE 1SS355TE-17			
D309	8-719-988-61	DIODE 1SS355TE-17			
		< COIL >			
FB102	1-414-196-41	INDUCTOR, CHIP	47uH (AEP, UK)		
FB102	1-500-445-21	FERRITE	0uH (US,CND)		
FB202	1-414-196-41	INDUCTOR, CHIP	47uH (AEP, UK)		
FB202	1-500-445-21	FERRITE	0uH (US,CND)		
FB302	1-414-196-41	INDUCTOR, CHIP	47uH (AEP, UK)		
FB302	1-500-445-21	FERRITE	0uH (US,CND)		
FB303	1-414-196-41	INDUCTOR, CHIP	47uH (AEP, UK)		
FB303	1-500-445-21	FERRITE	0uH (US,CND)		
		< JACK >			
J303	1-785-369-11	JACK (LINE IN)			

****

Ref. No.	Part No.	Description			Remark
*	A-3321-986-A	MAIN BOARD, COMPLETE (US, CND)			
*	A-3322-139-A	MAIN BOARD, COMPLETE (AEP, UK)			
		**********************			
		< CAPACITOR/RESISTOR >			
C101	1-126-964-11	ELECT	10uF	20%	50V
C102	1-126-960-11	ELECT	1uF	20%	50V
C103	1-126-960-11	ELECT	1uF	20%	50V
C104	1-126-964-11	ELECT	10uF	20%	50V
C105	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C106	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V
C107	1-162-979-11	CERAMIC CHIP	0.0027uF	10%	50V
C108	1-126-964-11	ELECT	10uF	20%	50V
C109	1-126-961-11	ELECT	2.2uF	20%	50V
C110	1-126-961-11	ELECT	2.2uF	20%	50V
C111	1-126-961-11	ELECT	2.2uF	20%	50V
C112	1-126-961-11	ELECT	2.2uF	20%	50V
C113	1-104-665-11	ELECT	100uF	20%	10V
C114	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C115	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C116	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C201	1-126-964-11	ELECT	10uF	20%	50V
C202	1-126-960-11	ELECT	1uF	20%	50V
C203	1-126-960-11	ELECT	1uF	20%	50V
C204	1-126-964-11	ELECT	10uF	20%	50V
C205	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C206	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V
C207	1-162-979-11	CERAMIC CHIP	0.0027uF	10%	50V
C208	1-126-964-11	ELECT	10uF	20%	50V
C209	1-126-961-11	ELECT	2.2uF	20%	50V
C210	1-126-961-11	ELECT	2.2uF	20%	50V
C211	1-126-961-11	ELECT	2.2uF	20%	50V
C212	1-104-665-11	ELECT	100uF	20%	10V
C213	1-126-961-11	ELECT	2.2uF	20%	50V
C214	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C215	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C216	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C301	1-126-964-11	ELECT	10uF	20%	50V
C302	1-126-964-11	ELECT	10uF	20%	50V
C303	1-104-665-11	ELECT	100uF	20%	10V
C304	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C305	1-104-665-11	ELECT	100uF	20%	10V
C306	1-104-665-11	ELECT	100uF	20%	10V
C307	1-104-665-11	ELECT	100uF	20%	10V
C308	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C309	1-104-665-11	ELECT	100uF	20%	10V
C310	1-126-964-11	ELECT	10uF	20%	50V
C311	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C312	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C313	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C401	1-117-850-11	ELECT	15000uF	20%	16V
C402	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C403	1-126-964-11	ELECT	10uF	20%	50V
C404	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C405	1-104-905-11	CAPACITOR	0.22F		5.5V
C406	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
C407	1-126-964-11	ELECT	10uF	20%	50V
C408	1-126-917-11	ELECT	3300uF	20%	6.3V
C409	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C410	1-126-926-11	ELECT	1000uF	20%	10V
C411	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C412	1-126-925-11	ELECT	470uF	20%	10V
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C414	1-104-664-11	ELECT	47uF	20%	10V
C415	1-126-964-11	ELECT	10uF	20%	50V
C416	1-126-964-11	ELECT	10uF	20%	50V
C417	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C418	1-104-664-11	ELECT	47uF	20%	10V
C419	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C420	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C421	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C422	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C423	1-164-378-11	CERAMIC CHIP	30PF	5%	50V
C424	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C425	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C426	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C427	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C428	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C429	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C430	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C431	1-104-665-11	ELECT	100uF	20%	10V
C432	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C433	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C434	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C435	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C436	1-162-927-11	CERAMIC CHIP	100P	5%	50V (AEP, UK)
C436	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (US, CND)
C437	1-162-927-11	CERAMIC CHIP	100P	5%	50V (AEP, UK)
C437	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (US, CND)
C438	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C439	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C440	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C441	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C442	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description				Remark
C443	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C444	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C445	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C446	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C447	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C448	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C449	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C450	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C451	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C452	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C453	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C454	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C455	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C456	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C457	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C458	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C459	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C460	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C461	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C462	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C463	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C464	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C465	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C466	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	
C467	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C468	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C469	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C470	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C471	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C472	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C473	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C475	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C476	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C477	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C478	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C479	1-162-923-11	CERAMIC CHIP	47PF	5%	50V	
C480	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C483	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C484	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C485	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C486	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	
C487	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	
C488	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C489	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C490	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C491	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C492	1-126-961-11	ELECT	2.2uF	20%	50V	(AEP, UK)
C493	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	(AEP, UK)
C494	1-163-263-11	CERAMIC CHIP	330PF	5%	50V	(AEP, UK)
C495	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	(AEP, UK)
C496	1-128-551-11	ELECT	22uF	20%	25V	(AEP, UK)
C497	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	(AEP, UK)

Ref. No.	Part No.	Description				Remark
C498	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	(AEP, UK)
C499	1-126-925-11	ELECT	470uF	20%	10V	(AEP, UK)
C500	1-163-135-00	CERAMIC CHIP	560PF	5%	50V	(AEP, UK)
C501	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	(AEP, UK)
C502	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	(AEP, UK)
C503	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C505	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C506	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C507	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C508	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C509	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	(AEP, UK)
C510	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C511	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C512	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C514	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V	
C518	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C519	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	
C520	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C521	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C522	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C523	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C524	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C525	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C526	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C528	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C529	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C530	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	(AEP, UK)
C530	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	(US, CND)
C531	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	
C532	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	(AEP, UK)
C537	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	
C538	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	(AEP, UK)
C701	1-104-665-11	ELECT	100uF	20%	10V	
C702	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C703	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C705	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
C706	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C707	1-126-926-11	ELECT	1000uF	20%	10V	
C708	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C709	1-216-864-11	METAL CHIP	0	5%	1/16W	
C710	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C711	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C712	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C713	1-104-665-11	ELECT	100uF	20%	10V	
C714	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
C715	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C716	1-104-664-11	ELECT	47uF	20%	10V	
C717	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	

MAIN

Ref. No.	Part No.	Description				Remark
C718	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C719	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V	
C720	1-119-660-11	TANTALUM CHIP	4.7uF	20%	6.3V	
C721	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C722	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V	
C723	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V	
C724	1-162-913-11	CERAMIC CHIP	8PF	0.50PF	50V	
C725	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	
C726	1-104-509-11	CERAMIC CHIP	0.018uF	10%	16V	
C727	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C728	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	
C729	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V	
C730	1-126-961-11	ELECT	2.2uF	20%	50V	
C731	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	
C732	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C733	1-162-923-11	CERAMIC CHIP	47PF	5%	50V	
C735	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C736	1-104-665-11	ELECT	100uF	20%	10V	
C737	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C738	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C739	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C740	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C744	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C745	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V	
C746	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	
C747	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V	
C748	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	
C749	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C750	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C751	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C752	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C753	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C755	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C756	1-163-263-11	CERAMIC CHIP	330PF	5%	50V	
C757	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C758	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C759	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C760	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C761	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C762	1-107-682-11	CERAMIC CHIP	1uF	10%	16V	
C763	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C764	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C765	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C767	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	
C768	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	
C770	1-104-665-11	ELECT	100uF	20%	10V	
C771	1-104-665-11	ELECT	100uF	20%	10V	
C772	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C773	1-126-964-11	ELECT	10uF	20%	50V	
C774	1-126-964-11	ELECT	10uF	20%	50V	
C775	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C776	1-125-822-11	TANTALUM	10uF	20%	10V	
C777	1-104-665-11	ELECT	100uF	20%	10V	
C778	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C779	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C780	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	
C781	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	

Ref. No.	Part No.	Description				Remark
C783	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	
C784	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C785	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C787	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	
C788	1-126-934-11	ELECT	220uF	20%	10V	
C789	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C791	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	
C792	1-126-925-11	ELECT	470uF	20%	10V	
		< CONNECTOR >				
* CN302	1-580-171-11	PIN, CONNECTOR (PC BOARD) 10P				
CN303	1-580-168-11	PIN, CONNECTOR (PC BOARD) 7P				
* CN312	1-580-154-11	PIN, CONNECTOR (PC BOARD) 2P				
* CN401	1-564-518-11	PLUG, CONNECTOR 3P				
* CN402	1-580-168-21	PIN, CONNECTOR (PC BOARD) 7P				
CN404	1-580-168-11	PIN, CONNECTOR (PC BOARD) 7P				
CN405	1-770-533-31	CONNECTOR, FFC/FPC 26P				
CN406	1-568-852-11	CONNECTOR, FFC/FPC 9P				
CN407	1-770-520-31	CONNECTOR, FFC/FPC 12P				
CN408	1-580-168-11	PIN, CONNECTOR (PC BOARD) 7P				
CN409	1-770-516-31	CONNECTOR, FFC/FPC 8P				
* CN701	1-779-466-11	CONNECTOR, FFC/FPC 16P				
CN702	1-770-519-31	CONNECTOR, FFC/FPC 11P				
* CN704	1-580-163-11	PIN, CONNECTOR (PC BOARD) 2P				
		< DIODE >				
D301	8-719-988-61	DIODE 1SS355TE-17				
D302	8-719-988-61	DIODE 1SS355TE-17				
D303	8-719-988-61	DIODE 1SS355TE-17				
D304	8-719-988-61	DIODE 1SS355TE-17				
D401	8-719-988-61	DIODE 1SS355TE-17				
D402	8-719-056-83	DIODE UDZ-TE-17-6.8B				
D403	8-719-988-61	DIODE 1SS355TE-17 (AEP, UK)				
D404	8-719-988-61	DIODE 1SS355TE-17				
D407	8-719-988-61	DIODE 1SS355TE-17				
D703	8-719-056-76	DIODE UDZ-TE-17-3.6B				
		< COIL/RESISTOR >				
FB101	1-216-295-00	SHORT	0 (US, CND)			
FB101	1-469-152-11	FERRITE	0uH (AEP, UK)			
FB201	1-216-295-00	SHORT	0 (US, CND)			
FB201	1-469-152-11	FERRITE	0uH (AEP, UK)			
FB301	1-216-295-00	SHORT	0 (US, CND)			
FB301	1-469-152-11	FERRITE	0uH (AEP, UK)			
FB401	1-216-296-00	SHORT	0			
FB402	1-469-125-21	FERRITE	0uH			
FB403	1-469-152-11	FERRITE	0uH			
FB404	1-469-125-21	FERRITE	0uH			
FB405	1-469-152-11	FERRITE	0uH			
FB406	1-469-152-11	FERRITE	0uH			
FB407	1-469-125-21	FERRITE	0uH			
FB408	1-469-152-11	FERRITE	0uH			
FB409	1-469-125-21	FERRITE	0uH			
FB410	1-469-125-21	FERRITE	0uH			
FB411	1-216-295-00	SHORT	0			
FB412	1-469-185-11	FERRITE	0uH			
FB413	1-469-185-11	FERRITE	0uH			
FB414	1-469-152-11	FERRITE	0uH			

Ref. No.	Part No.	Description			Remark
FB415	1-469-152-11	FERRITE	0uH		
FB417	1-469-125-21	FERRITE	0uH		
FB418	1-469-125-21	FERRITE	0uH		
FB419	1-469-125-21	FERRITE	0uH		
FB420	1-469-125-21	FERRITE	0uH		
FB421	1-469-125-21	FERRITE	0uH		
FB422	1-469-125-21	FERRITE	0uH		
FB423	1-216-295-00	SHORT	0		
FB424	1-216-295-00	SHORT	0		
FB425	1-216-295-00	SHORT	0		
FB426	1-216-864-11	METAL CHIP	0	5%	1/16W
FB427	1-216-295-00	SHORT	0 (US, CND)		
FB427	1-414-170-41	INDUCTOR, CHIP	100uH (AEP, UK)		
FB428	1-216-295-00	SHORT	0 (AEP, UK)		
FB429	1-216-295-00	SHORT	0		
FB430	1-216-295-00	SHORT	0		
FB431	1-216-295-00	SHORT	0		
FB432	1-216-864-11	METAL CHIP	0	5%	1/16W
FB433	1-216-295-00	SHORT	0		
FB434	1-216-864-11	METAL CHIP	0	5%	1/16W
FB435	1-500-445-21	FERRITE	0uH		
FB436	1-216-295-00	SHORT	0		
FB437	1-500-445-21	FERRITE	0uH		
FB438	1-500-445-21	FERRITE	0uH		
FB701	1-216-864-11	METAL CHIP	0	5%	1/16W
FB702	1-469-180-22	FERRITE	0uH		
FB703	1-216-864-11	METAL CHIP	0	5%	1/16W
FB704	1-216-295-00	SHORT	0		
FB705	1-469-180-22	FERRITE	0uH		
FB706	1-469-180-22	FERRITE	0uH		
FB707	1-469-180-22	FERRITE	0uH		
FB708	1-500-445-21	FERRITE	0uH		
FB711	1-500-445-21	FERRITE	0uH		
FB712	1-500-445-21	FERRITE	0uH		
FB713	1-414-813-11	FERRITE	0uH		
FB714	1-414-813-11	FERRITE	0uH		
		< IC >			
IC301	8-759-287-76	IC NJM2123M-T1			
IC302	8-759-636-55	IC M5218AFP			
IC406	8-759-557-36	IC BU1924F-E2 (AEP, UK)			
IC401	8-759-450-47	IC BA05T			
IC402	8-759-486-73	IC XC62FP3302PR			
IC403	8-759-493-53	IC S-81233SGUP-DQF-T1			
IC404	8-759-572-25	IC XC61AN2702PR			
IC405	8-752-909-98	IC CXP740096-032Q			
IC701	8-752-083-24	IC CXA2542AQ			
IC702	8-752-387-78	IC CXD3009Q			
IC703	8-759-591-62	IC BA6998FP-E2			
		< JACK >			
J301	1-785-368-11	JACK (🎧)			
		< RESISTOR >			
JC301	1-216-864-11	METAL CHIP	0	5%	1/16W
JC401	1-216-296-00	SHORT	0		
JC402	1-216-296-00	SHORT	0		

Ref. No.	Part No.	Description		Remark
JC403	1-216-296-00	SHORT	0	
JC404	1-216-296-00	SHORT	0	
JC405	1-216-296-00	SHORT	0	
JC406	1-216-296-00	SHORT	0	
JC407	1-216-295-00	SHORT	0	
JC408	1-216-296-00	SHORT	0	
JC409	1-216-296-00	SHORT	0	
JC412	1-216-296-00	SHORT	0	
JC413	1-216-296-00	SHORT	0	
JC414	1-216-296-00	SHORT	0	
JC415	1-216-295-00	SHORT	0	
JC700	1-216-296-00	SHORT	0	
JC701	1-216-296-00	SHORT	0	
JC702	1-216-296-00	SHORT	0	
JC703	1-216-296-00	SHORT	0	
JC704	1-216-296-00	SHORT	0	
JC705	1-216-296-00	SHORT	0	
		< COIL >		
L301	1-410-993-42	INDUCTOR CHIP	1uH	
L302	1-410-993-42	INDUCTOR CHIP	1uH	
L303	1-410-993-42	INDUCTOR CHIP	1uH	
L401	1-414-170-41	INDUCTOR	100uH (AEP, UK)	
L402	1-414-394-41	INDUCTOR	2.2uH	
L403	1-414-394-41	INDUCTOR	2.2uH	
L701	1-412-967-31	INDUCTOR	0.1uH	
L702	1-410-997-42	INDUCTOR CHIP	2.2uH	
		< TRANSISTOR >		
Q101	8-729-920-31	TRANSISTOR	DTC343TK	
Q102	8-729-920-31	TRANSISTOR	DTC343TK	
Q103	8-729-903-10	TRANSISTOR	FMW1	
Q104	8-729-920-31	TRANSISTOR	DTC343TK	
Q105	8-729-027-46	TRANSISTOR	DTC114YKA-T146	
Q106	8-729-920-31	TRANSISTOR	DTC343TK	
Q201	8-729-920-31	TRANSISTOR	DTC343TK	
Q202	8-729-920-31	TRANSISTOR	DTC343TK	
Q203	8-729-903-10	TRANSISTOR	FMW1	
Q204	8-729-920-31	TRANSISTOR	DTC343TK	
Q205	8-729-027-46	TRANSISTOR	DTC114YKA-T146	
Q206	8-729-920-31	TRANSISTOR	DTC343TK	
Q301	8-729-920-41	TRANSISTOR	FMC3	
Q302	8-729-920-41	TRANSISTOR	FMC3	
Q303	8-729-027-24	TRANSISTOR	DTA114TKA-T146	
Q304	8-729-027-24	TRANSISTOR	DTA114TKA-T146	
Q305	8-729-920-41	TRANSISTOR	FMC3	
Q306	8-729-920-41	TRANSISTOR	FMC3	
Q307	8-729-920-41	TRANSISTOR	FMC3	
Q308	8-729-027-24	TRANSISTOR	DTA114TKA-T146	
Q401	8-729-920-41	TRANSISTOR	FMC3	
Q402	8-729-922-62	TRANSISTOR	2SD1760F5-TLQ	
Q403	8-729-920-41	TRANSISTOR	FMC3	
Q404	8-729-027-46	TRANSISTOR	DTC114YKA-T146	
Q405	8-729-903-46	TRANSISTOR	2SB1132-P	
Q406	8-729-903-10	TRANSISTOR	FMW1	
Q407	8-729-027-46	TRANSISTOR	DTC114YKA-T146	
Q408	8-729-027-46	TRANSISTOR	DTC114YKA-T146	
Q409	8-729-027-26	TRANSISTOR	DTA114YKA-T146	

MAIN

Ref. No.	Part No.	Description			Remark
Q410	8-729-903-46	TRANSISTOR	2SB1132-P		
Q411	8-729-027-46	TRANSISTOR	DTC114YKA-T146		
Q412	8-729-027-46	TRANSISTOR	DTC114YKA-T146		
Q413	8-729-027-26	TRANSISTOR	DTA114YKA-T146		
Q415	8-729-027-26	TRANSISTOR	DTA114YKA-T146 (AEP, UK)		
Q701	8-729-101-07	TRANSISTOR	2SB798-DL		
Q702	8-729-027-29	TRANSISTOR	DTA123JKA-T146		
Q703	8-729-922-62	TRANSISTOR	2SD1760F5-TLQ		
Q705	8-729-931-02	TRANSISTOR	2SC2413KQ		
		< RESISTOR >			
R101	1-216-821-11	METAL CHIP	1K	5%	1/16W
R102	1-216-097-00	RES, CHIP	100K	5%	1/10W
R103	1-216-230-00	RES, CHIP	22K	5%	1/8W
R104	1-216-081-00	METAL CHIP	22K	5%	1/10W
R105	1-216-821-11	METAL CHIP	1K	5%	1/16W
R106	1-216-081-00	METAL CHIP	22K	5%	1/10W
R107	1-216-081-00	METAL CHIP	22K	5%	1/10W
R108	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R109	1-216-097-00	RES, CHIP	100K	5%	1/10W
R110	1-216-821-11	METAL CHIP	1K	5%	1/16W
R111	1-216-821-11	METAL CHIP	1K	5%	1/16W
R112	1-216-845-11	METAL CHIP	100K	5%	1/16W
R113	1-216-821-11	METAL CHIP	1K	5%	1/16W
R114	1-216-821-11	METAL CHIP	1K	5%	1/16W
R115	1-216-821-11	METAL CHIP	1K	5%	1/16W
R116	1-216-845-11	METAL CHIP	100K	5%	1/16W
R117	1-216-821-11	METAL CHIP	1K	5%	1/16W
R118	1-216-864-11	METAL CHIP	0	5%	1/16W
R119	1-216-097-00	RES, CHIP	100K	5%	1/10W
R120	1-216-089-00	RES, CHIP	47K	5%	1/10W
R121	1-216-073-00	METAL CHIP	10K	5%	1/10W
R122	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R124	1-216-864-11	METAL CHIP	0	5%	1/16W
R125	1-216-073-00	METAL CHIP	10K	5%	1/10W
R126	1-216-073-00	METAL CHIP	10K	5%	1/10W
R127	1-216-845-11	METAL CHIP	100K	5%	1/16W
R128	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R129	1-216-833-11	RES, CHIP	10K	5%	1/16W
R130	1-216-833-11	RES, CHIP	10K	5%	1/16W
R131	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R132	1-216-845-11	METAL CHIP	100K	5%	1/16W
R133	1-216-025-00	RES, CHIP	100	5%	1/10W
R141	1-216-864-11	METAL CHIP	0	5%	1/16W
R201	1-216-049-11	RES, CHIP	1K	5%	1/10W
R202	1-216-097-00	RES, CHIP	100K	5%	1/10W
R203	1-216-230-00	RES, CHIP	22K	5%	1/8W
R204	1-216-081-00	METAL CHIP	22K	5%	1/10W
R205	1-216-821-11	METAL CHIP	1K	5%	1/16W
R206	1-216-081-00	METAL CHIP	22K	5%	1/10W
R207	1-216-081-00	METAL CHIP	22K	5%	1/10W
R208	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R209	1-216-097-00	RES, CHIP	100K	5%	1/10W
R210	1-216-821-11	METAL CHIP	1K	5%	1/16W
R211	1-216-821-11	METAL CHIP	1K	5%	1/16W
R212	1-216-845-11	METAL CHIP	100K	5%	1/16W
R213	1-216-821-11	METAL CHIP	1K	5%	1/16W
R214	1-216-821-11	METAL CHIP	1K	5%	1/16W
R215	1-216-821-11	METAL CHIP	1K	5%	1/16W
R216	1-216-845-11	METAL CHIP	100K	5%	1/16W
R217	1-216-821-11	METAL CHIP	1K	5%	1/16W
R218	1-216-864-11	METAL CHIP	0	5%	1/16W
R219	1-216-097-00	RES, CHIP	100K	5%	1/10W
R220	1-216-089-00	RES, CHIP	47K	5%	1/10W
R221	1-216-073-00	METAL CHIP	10K	5%	1/10W
R222	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R224	1-216-864-11	METAL CHIP	0	5%	1/16W
R225	1-216-073-00	METAL CHIP	10K	5%	1/10W
R226	1-216-073-00	METAL CHIP	10K	5%	1/10W
R227	1-216-845-11	METAL CHIP	100K	5%	1/16W
R228	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R229	1-216-833-11	RES, CHIP	10K	5%	1/16W
R230	1-216-833-11	RES, CHIP	10K	5%	1/16W
R231	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R232	1-216-845-11	METAL CHIP	100K	5%	1/16W
R233	1-216-809-11	METAL CHIP	100	5%	1/16W
R241	1-216-864-11	METAL CHIP	0	5%	1/16W
R301	1-216-833-11	RES, CHIP	10K	5%	1/16W
R302	1-216-097-00	RES, CHIP	100K	5%	1/10W
R303	1-216-833-11	RES, CHIP	10K	5%	1/16W
R304	1-216-097-00	RES, CHIP	100K	5%	1/10W
R305	1-216-029-00	METAL CHIP	150	5%	1/10W
R306	1-216-295-00	SHORT	0		
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W
R308	1-216-073-00	METAL CHIP	10K	5%	1/10W
R309	1-216-833-11	RES, CHIP	10K	5%	1/16W
R310	1-216-833-11	RES, CHIP	10K	5%	1/16W
R311	1-216-833-11	RES, CHIP	10K	5%	1/16W
R312	1-216-097-00	RES, CHIP	100K	5%	1/10W
R313	1-216-029-00	METAL CHIP	150	5%	1/10W
R314	1-216-821-11	METAL CHIP	1K	5%	1/16W
R347	1-216-841-11	METAL CHIP	47K	5%	1/16W
R401	1-216-805-11	METAL CHIP	47	5%	1/16W
R402	1-216-041-00	METAL CHIP	470	5%	1/10W
R403	1-216-049-11	RES, CHIP	1K	5%	1/10W
R404	1-216-839-11	METAL CHIP	33K	5%	1/16W
R405	1-216-833-11	RES, CHIP	10K	5%	1/16W
R406	1-216-821-11	METAL CHIP	1K	5%	1/16W
R407	1-216-049-11	RES, CHIP	1K	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/16W
R409	1-216-833-11	RES, CHIP	10K	5%	1/16W
R410	1-216-833-11	RES, CHIP	10K	5%	1/16W
R411	1-216-833-11	RES, CHIP	10K	5%	1/16W
R412	1-216-833-11	RES, CHIP	10K	5%	1/16W
R413	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R414	1-216-817-11	METAL CHIP	470	5%	1/16W
R415	1-216-817-11	METAL CHIP	470	5%	1/16W
R416	1-216-833-11	RES, CHIP	10K	5%	1/16W
R417	1-216-821-11	METAL CHIP	1K	5%	1/16W
R418	1-216-821-11	METAL CHIP	1K	5%	1/16W
R419	1-216-821-11	METAL CHIP	1K	5%	1/16W
R420	1-216-821-11	METAL CHIP	1K	5%	1/16W
R421	1-216-821-11	METAL CHIP	1K	5%	1/16W
R422	1-216-821-11	METAL CHIP	1K	5%	1/16W
R423	1-216-821-11	METAL CHIP	1K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R424	1-216-821-11	METAL CHIP	1K	5%	1/16W
R425	1-216-821-11	METAL CHIP	1K	5%	1/16W
R426	1-216-821-11	METAL CHIP	1K	5%	1/16W
R427	1-216-821-11	METAL CHIP	1K	5%	1/16W
R428	1-216-833-11	RES, CHIP	10K	5%	1/16W
R429	1-216-821-11	METAL CHIP	1K	5%	1/16W
R430	1-216-821-11	METAL CHIP	1K	5%	1/16W
R431	1-216-821-11	METAL CHIP	1K	5%	1/16W
R432	1-216-821-11	METAL CHIP	1K	5%	1/16W
R433	1-216-821-11	METAL CHIP	1K	5%	1/16W
R434	1-216-821-11	METAL CHIP	1K	5%	1/16W
R435	1-216-821-11	METAL CHIP	1K	5%	1/16W (AEP, UK)
R436	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R437	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R438	1-216-049-11	RES, CHIP	1K	5%	1/10W (US, CND)
R438	1-216-069-00	METAL CHIP	6.8K	5%	1/10W (AEP, UK)
R439	1-216-821-11	METAL CHIP	1K	5%	1/16W
R440	1-216-821-11	METAL CHIP	1K	5%	1/16W
R441	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R442	1-216-049-11	RES, CHIP	1K	5%	1/10W
R443	1-216-817-11	METAL CHIP	470	5%	1/16W
R444	1-216-817-11	METAL CHIP	470	5%	1/16W
R445	1-216-821-11	METAL CHIP	1K	5%	1/16W
R446	1-216-821-11	METAL CHIP	1K	5%	1/16W
R447	1-216-833-11	RES, CHIP	10K	5%	1/16W
R448	1-216-821-11	METAL CHIP	1K	5%	1/16W
R449	1-216-821-11	METAL CHIP	1K	5%	1/16W
R450	1-216-821-11	METAL CHIP	1K	5%	1/16W
R451	1-216-821-11	METAL CHIP	1K	5%	1/16W
R452	1-216-833-11	RES, CHIP	10K	5%	1/16W
R453	1-216-821-11	METAL CHIP	1K	5%	1/16W
R454	1-216-817-11	METAL CHIP	470	5%	1/16W
R455	1-216-817-11	METAL CHIP	470	5%	1/16W
R456	1-216-821-11	METAL CHIP	1K	5%	1/16W
R457	1-216-041-00	METAL CHIP	470	5%	1/10W
R458	1-216-041-00	METAL CHIP	470	5%	1/10W
R459	1-216-833-11	RES, CHIP	10K	5%	1/16W
R460	1-216-821-11	METAL CHIP	1K	5%	1/16W
R461	1-216-821-11	METAL CHIP	1K	5%	1/16W
R462	1-216-821-11	METAL CHIP	1K	5%	1/16W
R463	1-216-809-11	METAL CHIP	100	5%	1/16W
R464	1-216-821-11	METAL CHIP	1K	5%	1/16W
R465	1-216-809-11	METAL CHIP	100	5%	1/16W
R466	1-216-837-11	METAL CHIP	22K	5%	1/16W
R467	1-216-817-11	METAL CHIP	470	5%	1/16W
R468	1-216-833-11	RES, CHIP	10K	5%	1/16W
R470	1-216-821-11	METAL CHIP	1K	5%	1/16W
R471	1-216-049-11	RES, CHIP	1K	5%	1/10W
R472	1-216-839-11	METAL CHIP	33K	5%	1/16W
R473	1-216-049-11	RES, CHIP	1K	5%	1/10W
R474	1-216-821-11	METAL CHIP	1K	5%	1/16W (AEP, UK)
R474	1-216-833-11	RES, CHIP	10K	5%	1/16W (US, CND)
R475	1-216-821-11	METAL CHIP	1K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R476	1-216-821-11	METAL CHIP	1K	5%	1/16W
R477	1-216-833-11	RES, CHIP	10K	5%	1/16W
R478	1-216-821-11	METAL CHIP	1K	5%	1/16W
R479	1-216-821-11	METAL CHIP	1K	5%	1/16W
R480	1-216-821-11	METAL CHIP	1K	5%	1/16W
R481	1-216-821-11	METAL CHIP	1K	5%	1/16W
R482	1-216-837-11	METAL CHIP	22K	5%	1/16W
R483	1-216-841-11	METAL CHIP	47K	5%	1/16W
R484	1-216-841-11	METAL CHIP	47K	5%	1/16W
R485	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R486	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R487	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R488	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R489	1-216-085-00	METAL CHIP	33K	5%	1/10W
R490	1-216-081-00	METAL CHIP	22K	5%	1/10W
R491	1-216-837-11	METAL CHIP	22K	5%	1/16W
R492	1-216-839-11	METAL CHIP	33K	5%	1/16W
R493	1-216-821-11	METAL CHIP	1K	5%	1/16W (AEP, UK)
R494	1-216-821-11	METAL CHIP	1K	5%	1/16W (AEP, UK)
R495	1-216-821-11	METAL CHIP	1K	5%	1/16W
R496	1-216-864-11	METAL CHIP	0	5%	1/16W
R497	1-216-029-00	METAL CHIP	150	5%	1/10W (AEP, UK)
R498	1-216-815-11	RES, CHIP	330	5%	1/16W (AEP, UK)
R501	1-216-833-11	RES, CHIP	10K	5%	1/16W
R502	1-216-833-11	RES, CHIP	10K	5%	1/16W
R503	1-216-833-11	RES, CHIP	10K	5%	1/16W
R504	1-216-073-00	METAL CHIP	10K	5%	1/10W
R505	1-216-821-11	METAL CHIP	1K	5%	1/16W
R506	1-216-821-11	METAL CHIP	1K	5%	1/16W
R507	1-216-821-11	METAL CHIP	1K	5%	1/16W
R508	1-216-821-11	METAL CHIP	1K	5%	1/16W
R509	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R510	1-216-821-11	METAL CHIP	1K	5%	1/16W
R511	1-216-821-11	METAL CHIP	1K	5%	1/16W
R513	1-216-089-00	RES, CHIP	47K	5%	1/10W
R514	1-216-009-91	RES, CHIP	22	5%	1/10W
R700	1-216-833-11	RES, CHIP	10K	5%	1/16W
R701	1-216-835-11	METAL CHIP	15K	5%	1/16W
R703	1-216-855-11	METAL CHIP	680K	5%	1/16W
R706	1-216-847-11	METAL CHIP	150K	5%	1/16W
R710	1-218-273-11	RES, CHIP	510K	5%	1/16W
R711	1-216-847-11	METAL CHIP	150K	5%	1/16W
R712	1-216-844-11	METAL CHIP	82K	5%	1/16W
R713	1-216-841-11	METAL CHIP	47K	5%	1/16W
R714	1-216-841-11	METAL CHIP	47K	5%	1/16W
R715	1-216-847-11	METAL CHIP	150K	5%	1/16W
R716	1-216-845-11	METAL CHIP	100K	5%	1/16W
R718	1-216-041-00	METAL CHIP	470	5%	1/10W
R719	1-216-041-00	METAL CHIP	470	5%	1/10W
R720	1-216-041-00	METAL CHIP	470	5%	1/10W
R721	1-216-847-11	METAL CHIP	150K	5%	1/16W
R722	1-216-847-11	METAL CHIP	150K	5%	1/16W
R723	1-216-847-11	METAL CHIP	150K	5%	1/16W
R724	1-216-847-11	METAL CHIP	150K	5%	1/16W
R725	1-216-845-11	METAL CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R726	1-216-845-11	METAL CHIP	100K	5%	1/16W
R731	1-216-839-11	METAL CHIP	33K	5%	1/16W
R732	1-216-839-11	METAL CHIP	33K	5%	1/16W
R733	1-216-841-11	METAL CHIP	47K	5%	1/16W
R734	1-216-001-00	METAL CHIP	10	5%	1/10W
R735	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R741	1-216-849-11	METAL CHIP	220K	5%	1/16W
R742	1-216-847-11	METAL CHIP	150K	5%	1/16W
R750	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R751	1-216-835-11	METAL CHIP	15K	5%	1/16W
R752	1-216-839-11	METAL CHIP	33K	5%	1/16W
R753	1-216-821-11	METAL CHIP	1K	5%	1/16W
R758	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R760	1-216-097-00	RES, CHIP	100K	5%	1/10W
R762	1-216-853-11	METAL CHIP	470K	5%	1/16W
R763	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R764	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R765	1-216-833-11	RES, CHIP	10K	5%	1/16W
R766	1-216-857-11	METAL CHIP	1M	5%	1/16W
R767	1-216-833-11	RES, CHIP	10K	5%	1/16W
R768	1-216-849-11	METAL CHIP	220K	5%	1/16W
R769	1-216-033-00	METAL CHIP	220	5%	1/10W
R770	1-216-864-11	METAL CHIP	0	5%	1/16W
R771	1-469-125-21	FERRITE	0uH		
R772	1-216-033-00	METAL CHIP	220	5%	1/10W
R774	1-216-833-11	RES, CHIP	10K	5%	1/16W
R775	1-216-817-11	METAL CHIP	470	5%	1/16W
R776	1-216-073-00	METAL CHIP	10K	5%	1/10W
R777	1-216-821-11	METAL CHIP	1K	5%	1/16W
R778	1-216-821-11	METAL CHIP	1K	5%	1/16W
R780	1-216-864-11	METAL CHIP	0	5%	1/16W
R781	1-216-073-00	METAL CHIP	10K	5%	1/10W
R784	1-216-089-00	RES, CHIP	47K	5%	1/10W
R787	1-216-821-11	METAL CHIP	1K	5%	1/16W
R788	1-216-821-11	METAL CHIP	1K	5%	1/16W
R789	1-216-809-11	METAL CHIP	100	5%	1/16W
R790	1-216-049-11	RES, CHIP	1K	5%	1/10W
R791	1-216-821-11	METAL CHIP	1K	5%	1/16W
R792	1-216-809-11	METAL CHIP	100	5%	1/16W
R793	1-216-821-11	METAL CHIP	1K	5%	1/16W
R794	1-216-817-11	METAL CHIP	470	5%	1/16W
R795	1-216-813-11	METAL CHIP	220	5%	1/16W
R796	1-216-821-11	METAL CHIP	1K	5%	1/16W
R797	1-216-821-11	METAL CHIP	1K	5%	1/16W
R798	1-216-821-11	METAL CHIP	1K	5%	1/16W
R799	1-216-821-11	METAL CHIP	1K	5%	1/16W
		< VIBRATOR >			
X401	1-781-050-11	VIBRATOR, CERAMIC (8MHz)			
X402	1-767-697-11	VIBRATOR, CRYSTAL (32.768kHz)			
X403	1-760-556-11	VIBRATOR, CRYSTAL (4.332MHz) (AEP, UK)			
X701	1-781-462-21	VIBRATOR, CRYSTAL (33.8688MHz)			

****

*	A-3321-995-A	POWER BOARD, COMPLETE (US, CND)			
*	A-3322-152-A	POWER BOARD, COMPLETE (AEP, UK)			

****

Ref. No.	Part No.	Description			Remark
	1-533-233-31	HOLDER, FUSE			
		< CAPACITOR >			
C901	1-127-880-21	CERAMIC	0.022uF	10%	50V
C902	1-127-880-21	CERAMIC	0.022uF	10%	50V
C903	1-127-880-21	CERAMIC	0.022uF	10%	50V
C904	1-127-880-21	CERAMIC	0.022uF	10%	50V
C905	1-127-888-21	CERAMIC	0.1uF	10%	50V (AEP, UK)
C905	1-127-880-21	CERAMIC	0.022uF	10%	50V (US, CND)
C906	1-127-888-21	CERAMIC	0.1uF	10%	50V (AEP, UK)
C906	1-127-880-21	CERAMIC	0.022uF	10%	50V (US, CND)
C907	1-127-888-21	CERAMIC	0.1uF	10%	50V (AEP, UK)
C907	1-127-880-21	CERAMIC	0.022uF	10%	50V (US, CND)
C908	1-127-888-21	CERAMIC	0.1uF	10%	50V (AEP, UK)
C908	1-127-880-21	CERAMIC	0.022uF	10%	50V (US, CND)
C909	1-127-880-21	CERAMIC	0.022uF	10%	50V
C910	1-127-880-21	CERAMIC	0.022uF	10%	50V
C911	1-127-880-21	CERAMIC	0.022uF	10%	50V
C912	1-127-880-21	CERAMIC	0.022uF	10%	50V
C913	1-127-876-21	CERAMIC	0.01uF	10%	50V
C914	1-127-876-21	CERAMIC	0.01uF	10%	50V
C915	1-127-876-21	CERAMIC	0.01uF	10%	50V
C916	1-124-902-00	ELECT	0.47uF	20%	50V
		< CONNECTOR >			
* CN901	1-564-507-11	PLUG, CONNECTOR 4P			
* CN902	1-691-580-11	PIN, CONNECTOR (PC BOARD) 9P			
* CN903	1-793-660-11	PIN, CONNECTOR (PC BOARD) 3P			
		< DIODE >			
D901	8-719-302-38	DIODE RBV-602-01			
D902	8-719-025-03	DIODE RBA-402-SL			
D903	8-719-991-33	DIODE 1SS133T-77			
D904	8-719-991-33	DIODE 1SS133T-77			
D905	8-719-970-02	DIODE 1SR139-400			
D906	8-719-970-02	DIODE 1SR139-400			
D907	8-719-970-02	DIODE 1SR139-400			
D908	8-719-970-02	DIODE 1SR139-400			
		< FUSE >			
⚠F901	1-532-501-51	FUSE (T800mA/250V) (AEP, UK)			
⚠F901	1-576-101-11	FUSE (1.25A/250V) (US, CND)			
⚠F902	1-532-506-51	FUSE (T6.3A/250V) (AEP, UK)			
⚠F902	1-533-622-11	FUSE, GLASS CYLINDERICAL (10A/250V)			(US, CND)
⚠F903	1-532-389-51	FUSE (T500mA/250V) (AEP, UK)			
⚠F903	1-576-099-11	FUSE (0.8A/250V) (US, CND)			
⚠F904	1-532-465-51	FUSE, TIME LAG (T3.15A/125V) (AEP, UK)			
⚠F904	1-576-108-11	FUSE (4A/125V) (US, CND)			
⚠F905	1-533-910-41	FUSE, MICRO (5A/125V) (US)			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R901	1-249-429-11	CARBON	10K	5%	1/4W
R902	1-249-421-11	CARBON	2.2K	5%	1/4W
R903	1-202-725-00	SOLID	3.3M	10%	1/2W (US, CND)
		< TRANSFORMER >			
⚠T901	1-435-063-11	TRANSFORMER, POWER (AEP, UK)			
⚠T901	1-433-881-11	TRANSFORMER, POWER (US, CND)			
⚠T902	1-402-663-11	TRANSFORMER, LINE FILTER (LFT)			

****

Ref. No.	Part No.	Description			Remark
*	A-3323-217-A	POWER AMP BOARD, COMPLETE (US, CND)			
*	A-3323-354-A	POWER AMP BOARD, COMPLETE (AEP, UK)			
		***************************			
		(Including POWER AMP (A, B, C, D) board)			
		< CAPACITOR >			
C191	1-162-282-31	CERAMIC	100PF	10%	50V (US, CND)
C191	1-162-294-31	CERAMIC	0.001uF	10%	50V (AEP, UK)
C192	1-126-960-11	ELECT	1uF	20%	50V
C193	1-162-294-31	CERAMIC	0.001uF	10%	50V
C194	1-136-173-00	FILM	0.47uF	5%	50V
C195	1-136-173-00	FILM	0.47uF	5%	50V
C291	1-162-282-31	CERAMIC	100PF	10%	50V (US, CND)
C291	1-162-294-31	CERAMIC	0.001uF	10%	50V (AEP, UK)
C292	1-126-960-11	ELECT	1uF	20%	50V
C293	1-162-294-31	CERAMIC	0.001uF	10%	50V
C294	1-136-173-00	FILM	0.47uF	5%	50V
C295	1-136-173-00	FILM	0.47uF	5%	50V
C391	1-161-494-00	CERAMIC	0.022uF		25V
C392	1-126-966-11	ELECT	33uF	20%	16V
C393	1-126-964-11	ELECT	10uF	20%	50V
C394	1-117-207-11	ELECT (BLOCK)	6800uF	20%	25V
C395	1-136-165-00	FILM	0.1uF	5%	50V
		< CONNECTOR >			
* CN391	1-564-507-11	PLUG, CONNECTOR 4P			
* CN392	1-580-154-11	PIN, CONNECTOR (PC BOARD) 2P			
CN393	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
* CN395	1-580-154-11	PIN, CONNECTOR (PC BOARD) 2P			
		< DIODE >			
D391	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC391	8-759-538-94	IC LA4663			
		< COIL >			
L191	1-410-515-11	INDUCTOR, MICRO		33uH (AEP, UK)	
L291	1-410-515-11	INDUCTOR, MICRO		33uH (AEP, UK)	
L391	1-410-397-21	FERRITE	1.1uH (AEP, UK)		
		< JACK >			
J391	1-770-612-12	JACK, PIN 2P (SIGNAL INPUT)			
* J392	1-537-405-11	TERMINAL BOARD (2P SP) (SPEAKER OUTPUT, R-CH, IMPEDANCE USE 4Ω)			
		< TRANSISTOR >			
Q391	8-729-037-34	TRANSISTOR	KRA107M		
Q392	8-729-036-77	TRANSISTOR	KRC107M		
		< RESISTOR >			
R191	1-249-425-11	CARBON	4.7K	5%	1/4W
R192	1-247-843-11	CARBON	3.3K	5%	1/4W
⚠R193	1-249-385-11	CARBON	2.2	5%	1/6W F
⚠R194	1-249-385-11	CARBON	2.2	5%	1/6W F
R291	1-249-425-11	CARBON	4.7K	5%	1/4W
R292	1-247-843-11	CARBON	3.3K	5%	1/4W
⚠R293	1-249-385-11	CARBON	2.2	5%	1/6W F
⚠R294	1-249-385-11	CARBON	2.2	5%	1/6W F
R391	1-249-429-11	CARBON	10K	5%	1/4W
R392	1-247-863-91	CARBON	22K	5%	1/4W
R393	1-249-417-11	CARBON	1K	5%	1/4W (US, CND)
R394	1-249-417-11	CARBON	1K	5%	1/4W

****

Ref. No.	Part No.	Description			Remark
*	1-671-115-21	SW BOARD			
		**********			
		< CONNECTOR >			
* CN601	1-506-486-11	PIN, CONNECTOR 7P			
		< SWITCH >			
S601	1-572-126-21	SWITCH, PUSH (1 KEY) (REC POSITION)			
S602	1-572-126-21	SWITCH, PUSH (1 KEY) (PACK OUT)			
S604	1-771-264-11	SWITCH, PUSH (DETECTION) (1 KEY) (PLAY POSITION)			

****

Ref. No.	Part No.	Description			Remark
*	A-3323-216-A	SW (FRONT) BOARD, COMPLETE			
		****************************			
		< CAPACITOR >			
C553	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C554	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C555	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C556	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C557	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C558	1-124-259-11	ELECT	4.7uF	20%	16V
C574	1-163-038-00	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN551	1-691-071-31	HOUSING, CONNECTOR 12P			
		< LED >			
D553	8-719-946-49	LED SLC22MG3F (AMS/PRESET)			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SW (FRONT) SW (TOP)

Ref. No.	Part No.	Description	Remark
D554	8-719-946-49	LED SLC22MG3F (SELECT)	
D555	8-719-059-97	LED L-34HD (HIGH SPEED)	
		< IC >	
IC550	8-759-459-85	IC NJL63H400A	
		< SHORT >	
JC551	1-216-295-00	SHORT 0	
		< TRANSISTOR >	
Q553	8-729-027-58	TRANSISTOR DTC143ZKA-T146	
Q554	8-729-027-58	TRANSISTOR DTC143ZKA-T146	
Q555	8-729-027-58	TRANSISTOR DTC143ZKA-T146	
		< RESISTOR >	
R551	1-216-033-00	METAL CHIP 220 5% 1/10W	
R552	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R558	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R559	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R560	1-216-056-00	RES, CHIP 2K 5% 1/10W	
R561	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R562	1-216-048-00	METAL CHIP 910 5% 1/10W	
R563	1-216-045-00	METAL CHIP 680 5% 1/10W	
R564	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R565	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R566	1-216-056-00	RES, CHIP 2K 5% 1/10W	
R567	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R568	1-216-048-00	METAL CHIP 910 5% 1/10W	
R569	1-216-045-00	METAL CHIP 680 5% 1/10W	
R570	1-216-045-00	METAL CHIP 680 5% 1/10W	
R571	1-216-048-00	METAL CHIP 910 5% 1/10W	
R572	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R573	1-216-056-00	RES, CHIP 2K 5% 1/10W	
R574	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R575	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R579	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R585	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R586	1-216-045-00	METAL CHIP 680 5% 1/10W	
		< SWITCH >	
S556	1-475-977-11	SWITCH, ROTARY (JOG DIAL)	
S557	1-762-798-11	SWITCH, KEYBOARD (DELETE)	
S558	1-762-798-11	SWITCH, KEYBOARD (TUNE, ⇦ – ◀◀)	
S559	1-762-798-11	SWITCH, KEYBOARD (NO, CANCEL)	
S560	1-762-798-11	SWITCH, KEYBOARD (EDIT)	
S561	1-762-798-11	SWITCH, KEYBOARD (YES, ENTER)	
S562	1-762-798-11	SWITCH, KEYBOARD (DEIPLAY)	
S563	1-762-798-11	SWITCH, KEYBOARD (TUNE, + ⇨ ▶▶)	
S564	1-762-798-11	SWITCH, KEYBOARD (INSERT)	
S565	1-762-798-11	SWITCH, KEYBOARD (VOL +)	
S566	1-762-798-11	SWITCH, KEYBOARD (VOL –)	
S567	1-762-798-11	SWITCH, KEYBOARD (BASS/TREBLE)	
S568	1-762-798-11	SWITCH, KEYBOARD (MEGA BASS)	
S569	1-762-798-11	SWITCH, KEYBOARD (MD EJECT ⏏)	
S570	1-762-798-11	SWITCH, KEYBOARD (MONO/ST, REPEAT)	
S571	1-762-798-11	SWITCH, KEYBOARD (AUTO PRESET, SHUF/PGM)	
S572	1-762-798-11	SWITCH, KEYBOARD (POWER)	
S573	1-762-798-11	SWITCH, KEYBOARD (SLEEP)	
S574	1-762-798-11	SWITCH, KEYBOARD (STANDBY)	
S575	1-762-798-11	SWITCH, KEYBOARD (SYNCHRO REC, CD ► MD)	
S576	1-762-798-11	SWITCH, KEYBOARD (REC IT, TO TOP)	
S577	1-762-798-11	SWITCH, KEYBOARD (REC IT, TO END)	
S578	1-762-798-11	SWITCH, KEYBOARD (REC)	
S580	1-762-798-11	SWITCH, KEYBOARD (HIGH SPEED)	

****

Ref. No.	Part No.	Description	Remark
*	A-3321-990-A	SW (TOP) BOARD, COMPLETE	
		*************************	
		< CAPACITOR >	
C550	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C551	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
C552	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
		< CONNECTOR >	
CN550	1-691-067-31	HOUSING, CONNECTOR 8P	
		< LED >	
D550	8-719-047-57	LED SLA-362MT3F-A47 (▷II, MD)	
D551	8-719-047-57	LED SLA-362MT3F-A47 (▷II, CD)	
D552	8-719-047-57	LED SLA-362MT3F-A47 (BAND, RADIO)	
		< PILOT LAMP >	
PL550	1-517-848-11	LAMP, PILOT (CD DISC ILLUMINATION)	
		< TRANSISTOR >	
Q550	8-729-027-58	TRANSISTOR DTC143ZKA-T146	
Q551	8-729-027-58	TRANSISTOR DTC143ZKA-T146	
Q552	8-729-027-58	TRANSISTOR DTC143ZKA-T146	
		< RESISTOR >	
R550	1-216-029-00	METAL CHIP 150 5% 1/10W	
R553	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R554	1-216-210-00	RES, CHIP 3.3K 5% 1/8W	
R555	1-216-205-11	RES, CHIP 2K 5% 1/8W	
R556	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R557	1-216-048-00	METAL CHIP 910 5% 1/10W	
R578	1-216-045-00	METAL CHIP 680 5% 1/10W	
		< SWITCH >	
S550	1-762-798-11	SWITCH, KEYBOARD (□ (MD))	
S551	1-762-798-11	SWITCH, KEYBOARD (▷II, MD)	
S552	1-762-798-11	SWITCH, KEYBOARD (BAND, RADIO)	
S553	1-762-798-11	SWITCH, KEYBOARD (▷II, CD)	
S554	1-762-798-11	SWITCH, KEYBOARD (□ (CD))	
S555	1-762-798-11	SWITCH, KEYBOARD (CD OPEN/CLOSE, ⏏)	
S579	1-762-798-11	SWITCH, KEYBOARD (LINE/LINE LEVEL)	

****

Ref. No.	Part No.	Description			Remark
*	A-3323-212-A	TU BOARD, COMPLETE (US, CND)			
*	A-3323-274-A	TU BOARD, COMPLETE (AEP, UK)			
		*******************			
		< CAPACITOR >			
C1	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (US, CND)
C3	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (US, CND)
C5	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (US, CND)
C6	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V (US, CND)
C7	1-163-233-11	CERAMIC CHIP	18PF	5%	50V (US, CND)
C8	1-163-163-00	CERAMIC CHIP	18PF	5%	50V (US, CND)
C9	1-163-131-00	CERAMIC CHIP	390PF	5%	50V (US, CND)
C9	1-163-132-00	CERAMIC CHIP	430PF	5%	50V (AEP, UK)
C10	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C12	1-165-319-11	CERAMIC CHIP	0.1uF		50V (US, CND)
C13	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C14	1-126-960-11	ELECT	1uF	20%	50V
C15	1-126-963-11	ELECT	4.7uF	20%	50V
C16	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C17	1-126-382-11	ELECT	100uF	20%	10V
C18	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C19	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C20	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C21	1-126-960-11	ELECT	1uF	20%	50V
C22	1-163-003-11	CERAMIC CHIP	330PF	10%	50V (US, CND)
C22	1-163-263-11	CERAMIC CHIP	330PF	5%	50V (AEP, UK)
C23	1-126-160-11	ELECT	1uF	20%	50V
C24	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V (AEP, UK)
C24	1-165-319-11	CERAMIC CHIP	0.1uF		50V (US, CND)
C25	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V (AEP, UK)
C25	1-165-319-11	CERAMIC CHIP	0.1uF		50V (US, CND)
C27	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V (AEP, UK)
C27	1-165-319-11	CERAMIC CHIP	0.1uF		50V (US, CND)
C28	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C29	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C30	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C31	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C32	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C33	1-136-171-00	FILM	0.33uF	5%	50V (US, CND)
C33	1-137-194-81	FILM	0.47uF	5%	50V (AEP, UK)
C34	1-124-635-00	ELECT	220uF	20%	6.3V
C35	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C36	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C37	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C38	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (AEP, UK)
C39	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C40	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C41	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C42	1-126-160-11	ELECT	1uF	20%	50V
C43	1-126-160-11	ELECT	1uF	20%	50V
C45	1-124-635-00	ELECT	220uF	20%	6.3V (AEP, UK)
C46	1-126-795-11	ELECT	10uF	20%	50V
C48	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C49	1-109-982-11	CERAMIC CHIP	1uF	10%	10V (US, CND)
C50	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C51	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C52	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C53	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C55	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (AEP, UK)
C56	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (AEP, UK)
C57	1-126-934-11	ELECT	220uF	20%	10V (AEP, UK)
C58	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP, UK)
C60	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (AEP, UK)
C61	1-163-130-00	CERAMIC CHIP	360PF	5%	50V (AEP, UK)
C62	1-163-116-00	CERAMIC CHIP	91PF	5%	50V (AEP, UK)
C63	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V (AEP, UK)
C64	1-109-982-11	CERAMIC CHIP	1uF	10%	10V (AEP, UK)
C64	1-216-295-00	SHORT	0 (US, CND)		
C65	1-109-982-11	CERAMIC CHIP	1uF	10%	10V (AEP, UK)
C66	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (AEP, UK)
C67	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C68	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C69	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C70	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V (US, CND)
C70	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (AEP, UK)
C71	1-163-263-11	CERAMIC CHIP	330PF	5%	50V (AEP, UK)
C72	1-163-133-00	CERAMIC CHIP	470PF	5%	50V (AEP, UK)
C74	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V (AEP, UK)
C75	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C76	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (AEP, UK)
C77	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (AEP, UK)

Ref. No.	Part No.	Description			Remark
C78	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V (AEP, UK)
		< FILTER >			
CF1	1-781-407-11	FILTER, CERAMIC (AEP, UK)			
CF1	1-567-390-11	FILTER, CERAMIC 10.7M (US, CND)			
CF2	1-781-407-11	FILTER, CERAMIC (AEP, UK)			
CF2	1-567-390-11	FILTER, CERAMIC 10.7M (US, CND)			
CF3	1-781-171-11	DISCRIMINATOR, CERAMIC			
CF4	1-781-344-11	FILTER, AM CERAMIC			
		< CONNECTOR >			
* CN1	1-793-135-11	PIN, CONNECTOR (PC BOARD) 14P			
		< TRIMMER >			
CT1	1-141-603-11	CAP, ADJ (US, CND)			
CT2	1-141-603-11	CAP, ADJ (AEP, UK)			
CT2	1-141-601-11	CAP, ADJ (US, CND)			
CT3	1-141-605-11	CAP, ADJ (AEP, UK)			
CT4	1-141-603-11	CAP, ADJ (AEP, UK)			
CT5	1-141-605-11	CAP, ADJ (AEP, UK)			
		< DIODE/SHORT >			
D1	8-719-988-61	DIODE 1SS355TE-17 (US, CND)			
D2	8-719-988-61	DIODE 1SS355TE-17 (US, CND)			
D3	8-719-988-61	DIODE 1SS355TE-17			
D4	8-719-988-61	DIODE 1SS355TE-17			
D5	8-719-988-61	DIODE 1SS355TE-17			
D6	8-719-988-61	DIODE 1SS355TE-17			
D7	8-719-055-86	DIODE KV1470TL1-3 (US, CND)			
D8	8-719-055-86	DIODE KV1470TL1-3 (US, CND)			
D9	8-719-076-70	DIODE KV1520TL00			
D11	8-719-988-61	DIODE 1SS355TE-17 (US, CND)			
D12	8-719-988-61	DIODE 1SS355TE-17			
D13	8-719-988-61	DIODE 1SS355TE-17			
D14	8-719-988-61	DIODE 1SS355TE-17			
D17	8-719-988-61	DIODE 1SS355TE-17			
D18	8-719-988-61	DIODE 1SS355TE-17			
D19	1-216-295-00	SHORT	0 (AEP, UK)		
D19	8-719-988-61	DIODE 1SS355TE-17 (US, CND)			
D20	1-216-295-00	SHORT	0 (AEP, UK)		
D20	8-719-988-61	DIODE 1SS355TE-17 (US, CND)			
D21	8-719-988-61	DIODE 1SS355TE-17			
		< FILTER >			
FL1	1-236-711-21	FILTER, BAND PASS (US, CND)			
		< IC >			
IC1	8-759-549-84	IC TA2104AN			
IC2	8-759-483-40	IC LC72137M-TLM			
		< RESISTOR >			
JC1	1-216-295-00	SHORT	0 (US, CND)		
JC2	1-216-295-00	SHORT	0 (US, CND)		
JC3	1-216-295-00	SHORT	0 (US, CND)		
JC4	1-216-295-00	SHORT	0 (US, CND)		
JC5	1-216-295-00	SHORT	0 (US, CND)		

Ref. No.	Part No.	Description			Remark
JC7	1-216-864-11	METAL CHIP	0	5%	1/16W (US, CND)
JC8	1-216-295-00	SHORT	0		
JC9	1-216-295-00	SHORT	0		
JC10	1-216-295-00	SHORT	0		
JC11	1-216-295-00	SHORT	0		
JC12	1-216-295-00	SHORT	0		
JC13	1-216-295-00	SHORT	0		
JC14	1-216-864-11	METAL CHIP	0	5%	1/16W (AEP, UK)
JC15	1-216-041-00	METAL CHIP	470	5%	1/10W (AEP, UK)
JC15	1-216-295-00	SHORT	0 (US, CND)		
JC17	1-216-295-00	SHORT	0		
JC18	1-216-295-00	SHORT	0		
JC19	1-216-295-00	SHORT	0 (AEP, UK)		
JC20	1-216-295-00	SHORT	0		
JC21	1-216-295-00	SHORT	0		
JC24	1-216-295-00	SHORT	0 (AEP, UK)		
JC25	1-216-295-00	SHORT	0 (AEP, UK)		
JC26	1-216-295-00	SHORT	0 (AEP, UK)		
		< COIL >			
L1	1-406-994-41	COIL, FM RF (US, CND)			
L2	1-409-905-31	COIL, FM RF (US, CND)			
L3	1-416-991-11	COIL, AM ANT			
L4	1-411-959-11	COIL, AM OSC			
L5	1-416-129-11	COIL, LW ANT (AEP, UK)			
L6	1-412-006-31	CHIP INDUCTOR	10uH (AEP, UK)		
		< TRANSISTOR >			
Q1	8-729-920-31	TRANSISTOR	DTC343TK (AEP, UK)		
Q1	1-801-806-11	TRANSISTOR	DTC144EKA-T146		(US, CND)
Q2	8-729-904-07	TRANSISTOR	FMG2		
Q3	1-801-806-11	TRANSISTOR	DTC144EKA-T146		
Q4	8-729-920-31	TRANSISTOR	DTC343TK		
Q5	8-729-920-31	TRANSISTOR	DTC343TK		
Q6	8-729-920-41	TRANSISTOR	FMC3		
Q7	8-729-920-31	TRANSISTOR	DTC343TK		
Q8	8-729-920-31	TRANSISTOR	DTC343TK (AEP, UK)		
Q9	8-729-920-38	TRANSISTOR	2SC2059K-N (AEP, UK)		
Q10	8-729-931-02	TRANSISTOR	2SC2413KQ (AEP, UK)		
Q11	8-729-931-02	TRANSISTOR	2SC2413KQ (AEP, UK)		
Q12	8-729-039-73	TRANSISTOR	FMA5A-T148 (AEP, UK)		
Q13	8-729-027-23	TRANSISTOR	DTA114EKA-T146 (AEP, UK)		
Q14	8-729-931-02	TRANSISTOR	2SC2413KQ		
Q15	8-729-119-32	FET	2SK193 (AEP, UK)		
		< RESISTOR >			
R1	1-216-097-00	RES, CHIP	100K	5%	1/10W (US, CND)
R2	1-216-105-00	RES, CHIP	220K	5%	1/10W (US, CND)
R3	1-216-061-00	METAL CHIP	3.3K	5%	1/10W (US, CND)
R4	1-216-077-91	RES, CHIP	15K	5%	1/10W (US, CND)

Ref. No.	Part No.	Description			Remark
R5	1-216-073-00	METAL CHIP	10K	5%	1/10W (AEP, UK)
R5	1-216-089-00	RES, CHIP	47K	5%	1/10W (US, CND)
R6	1-216-097-00	RES, CHIP	100K	5%	1/10W
R7	1-216-013-00	METAL CHIP	33	5%	1/10W (US, CND)
R8	1-216-073-00	METAL CHIP	10K	5%	1/10W
R9	1-216-073-00	METAL CHIP	10K	5%	1/10W
R10	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R13	1-216-049-11	RES, CHIP	1K	5%	1/10W (AEP, UK)
R13	1-216-065-00	RES, CHIP	4.7K	5%	1/10W (US, CND)
R14	1-216-073-00	METAL CHIP	10K	5%	1/10W
R15	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R16	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R17	1-216-025-00	RES, CHIP	100	5%	1/10W (AEP, UK)
R17	1-216-009-91	RES, CHIP	22	5%	1/10W (US, CND)
R18	1-216-073-00	METAL CHIP	10K	5%	1/10W
R19	1-216-820-11	METAL CHIP	820	5%	1/16W
R20	1-216-081-00	METAL CHIP	22K	5%	1/10W
R21	1-216-833-11	RES, CHIP	10K	5%	1/16W
R22	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R23	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R24	1-216-021-00	METAL CHIP	68	5%	1/10W (AEP, UK)
R24	1-216-029-00	METAL CHIP	150	5%	1/10W (US, CND)
R27	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R28	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R29	1-216-073-00	METAL CHIP	10K	5%	1/10W
R30	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (AEP, UK)
R30	1-216-059-00	METAL CHIP	2.7K	5%	1/10W (US, CND)
R31	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (AEP, UK)
R31	1-216-059-00	METAL CHIP	2.7K	5%	1/10W (US, CND)
R32	1-216-073-00	METAL CHIP	10K	5%	1/10W
R33	1-216-049-11	RES, CHIP	1K	5%	1/10W
R34	1-216-073-00	METAL CHIP	10K	5%	1/10W
R35	1-216-049-11	RES, CHIP	1K	5%	1/10W
R36	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R38	1-216-037-00	METAL CHIP	330	5%	1/10W (US, CND)
R38	1-216-295-00	SHORT	0 (AEP, UK)		
R40	1-216-805-11	METAL CHIP	47	5%	1/16W (US, CND)
R40	1-216-811-11	METAL CHIP	150	5%	1/16W (AEP, UK)
R42	1-216-809-11	METAL CHIP	100	5%	1/16W
R45	1-216-017-00	RES, CHIP	47	5%	1/10W (AEP, UK)
R46	1-216-041-00	METAL CHIP	470	5%	1/10W (AEP, UK)

Ref. No.	Part No.	Description			Remark
R47	1-216-049-11	RES, CHIP	1K	5%	1/10W (AEP, UK)
R49	1-216-849-11	METAL CHIP	220K	5%	1/16W (AEP, UK)
R52	1-216-825-11	METAL CHIP	2.2K	5%	1/16W (AEP, UK)
R54	1-216-065-00	RES, CHIP	4.7K	5%	1/10W (AEP, UK)
R55	1-216-829-11	METAL CHIP	4.7K	5%	1/16W (AEP, UK)
R56	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (AEP, UK)
R57	1-216-061-00	METAL CHIP	3.3K	5%	1/10W (AEP, UK)
R58	1-216-025-00	RES, CHIP	100	5%	1/10W
R59	1-216-105-00	RES, CHIP	220K	5%	1/10W (AEP, UK)
R60	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R61	1-216-089-00	RES, CHIP	47K	5%	1/10W
R62	1-216-073-00	METAL CHIP	10K	5%	1/10W
R63	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R64	1-216-029-00	METAL CHIP	150	5%	1/10W (US, CND)
R64	1-216-295-00	SHORT	0 (AEP, UK)		
R65	1-216-097-00	RES, CHIP	100K	5%	1/10W (AEP, UK)
R66	1-216-097-00	RES, CHIP	100K	5%	1/10W (AEP, UK)
R67	1-216-073-00	METAL CHIP	10K	5%	1/10W (AEP, UK)
R68	1-216-041-00	METAL CHIP	470	5%	1/10W (AEP, UK)
R69	1-216-025-00	RES, CHIP	100	5%	1/10W
		< TRANSFORMER >			
T1	1-433-741-11	TRANSFORMER, IF			
T2	1-233-306-31	ENCAPSULATED COMPONENT (AEP, UK)			
		< TERMINAL >			
TB1	1-537-488-11	TERMINAL BOARD (FM EXT/AM ANTENNA)			(AEP, UK)
TB1	1-537-924-21	TERMINAL BOARD (FM EXT/AM ANTENNA)			(US, CND)
		< TUNER UNIT >			
* TU1	1-693-378-11	FM/AM TUNER UNIT (AEP, UK)			
		< VIBRATOR >			
X1	1-760-130-11	VIBRATOR, CRYSTAL (75kHz)			

****

Ref. No.	Part No.	Description	Remark
*	1-674-439-11	W-LED BOARD (US, CND)	
*	1-674-439-21	W-LED BOARD (AEP, UK)	

****

< LED >

Ref. No.	Part No.	Description	Remark
D821	8-719-941-07	LED SLC22VR3 (LEVEL)	

****

W-POWER　W-VOLUME　WOOFER-AMP

Ref. No.	Part No.	Description				Remark
*	1-674-440-11	W-POWER BOARD (US, CND)				
*	1-674-440-21	W-POWER BOARD (AEP, UK)				
		****************				
	1-533-233-31	HOLDER, FUSE				
		< CAPACITOR >				
C801	1-127-888-21	CERAMIC	0.1uF	10%	50V	(AEP, UK)
C801	1-127-880-21	CERAMIC	0.022uF	10%	50V	(US, CND)
C802	1-127-888-21	CERAMIC	0.1uF	10%	50V	(AEP, UK)
C802	1-127-880-21	CERAMIC	0.022uF	10%	50V	(US, CND)
C803	1-127-888-21	CERAMIC	0.1uF	10%	50V	(AEP, UK)
C803	1-127-880-21	CERAMIC	0.022uF	10%	50V	(US, CND)
C804	1-127-888-21	CERAMIC	0.1uF	10%	50V	(AEP, UK)
C804	1-127-880-21	CERAMIC	0.022uF	10%	50V	(US, CND)
C805	1-127-880-21	CERAMIC	0.022uF	10%	50V	
C806	1-127-880-21	CERAMIC	0.022uF	10%	50V	
		< CONNECTOR >				
* CN801	1-793-660-11	PIN, CONNECTOR (PC BOARD) 3P				
* CN802	1-580-155-11	PIN, CONNECTOR (PC BOARD) 3P (AEP, UK)				
* CN802	1-564-506-11	PLUG, CONNECTOR 3P (US, CND)				
		< DIODE >				
D801	8-719-902-17	DIODE U15G				
D801	8-719-046-47	DIODE 1N5401TM (US, CND)				
D802	8-719-902-17	DIODE U15G				
D802	8-719-046-47	DIODE 1N5401TM (US, CND)				
D803	8-719-902-17	DIODE U15G				
D803	8-719-046-47	DIODE 1N5401TM (US, CND)				
D804	8-719-902-17	DIODE U15G				
D804	8-719-046-47	DIODE 1N5401TM (US, CND)				
		< FUSE >				
⚠F801	1-532-501-51	FUSE (T800mAL/250V) (AEP, UK)				
⚠F801	1-576-101-11	FUSE (1.25A/250V) (US, CND)				
⚠F802	1-532-501-51	FUSE (T800mAL/250V) (AEP, UK)				
⚠F802	1-576-101-11	FUSE (1.25A/250V) (US, CND)				
⚠F803	1-532-465-51	FUSE, TIME LAG (T3.15AL/250V) (AEP, UK)				
⚠F803	1-576-108-11	FUSE (4A/125V) (US, CND)				
⚠F804	1-532-465-51	FUSE, TIME LAG (T3.15AL/250V) (AEP, UK)				
⚠F804	1-576-108-11	FUSE (4A/125V) (US, CND)				
		< JACK >				
⚠J801	1-785-575-11	OUTLET (AC) (AC OUTLET, MAX 35W)				(AEP, UK)
⚠J801	1-540-057-11	OUTLET, AC (POLAR) (AC OUTLET, MAX 35W)				(US, CND)

Ref. No.	Part No.	Description				Remark
		< LINE FILTER >				
LF801	1-402-663-11	TRANSFORMER, LINE FILTER (LFT)				
		< TRANSFORMER >				
⚠T801	1-433-450-11	TRANSFORMER, POWER (AEP, UK)				
⚠T801	1-433-880-11	TRANSFORMER, POWER (US, CND)				

****

Ref. No.	Part No.	Description				Remark
*	1-674-438-11	W-VOLUME BOARD (US, CND)				
*	1-674-438-21	W-VOLUME BOARD (AEP, UK)				
		****************				
		< CONNECTOR >				
CN821	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P				
		< VARIABLE RESISTOR >				
RV821	1-225-483-21	RES, VAR, CARBON 20K (LEVEL)				

****

Ref. No.	Part No.	Description				Remark
*	A-3323-280-A	WOOFER-AMP BOARD, COMPLETE (AEP, UK)				
*	A-3323-220-A	WOOFER-AMP BOARD, COMPLETE (US, CND)				
		*****************************				
		(Including WOOFER AMP (A, B) board complete)				
	3-040-863-01	LINK, LABEL IC (US, CND)				
		< CAPACITOR >				
C807	1-126-964-11	ELECT	10uF	20%	50V	
C811	1-126-955-11	ELECT	4700uF	20%	35V	
C812	1-126-955-11	ELECT	4700uF	20%	35V	
C813	1-126-933-11	ELECT	100uF	20%	16V	
C814	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C815	1-104-664-11	ELECT	47uF	20%	25V	
C816	1-126-963-11	ELECT	4.7uF	20%	50V	
C817	1-126-959-11	ELECT	0.47uF	20%	50V	
C818	1-126-933-11	ELECT	100uF	20%	16V	
C819	1-126-960-11	ELECT	1uF	20%	50V	
C820	1-136-165-00	FILM	0.1uF	5%	50V	
C821	1-130-489-00	MYLAR	0.033uF	5%	50V	
C822	1-126-960-11	ELECT	1uF	20%	50V	
C823	1-136-164-00	FILM	0.082uF	5%	50V	
C824	1-128-551-11	ELECT	22uF	20%	25V	
C825	1-128-551-11	ELECT	22uF	20%	25V	
C826	1-126-964-11	ELECT	10uF	20%	50V	
C827	1-126-964-11	ELECT	10uF	20%	50V	
C828	1-126-960-11	ELECT	1uF	20%	50V	
C830	1-104-665-11	ELECT	100uF	20%	10V	
C831	1-137-374-11	FILM	0.047uF	5%	50V	
		< CONNECTOR >				
CN803	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P				
* CN811	1-564-506-11	PLUG, CONNECTOR 3P (US, CND)				
* CN811	1-580-155-11	PIN, CONNECTOR (PC BOARD) 3P (AEP, UK)				
* CN812	1-564-505-11	PLUG, CONNECTOR 2P (US, CND)				
* CN812	1-580-154-11	PIN, CONNECTOR (PC BOARD) 2P (AEP, UK)				

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description				Remark
		< DIODE >				
D811	8-719-991-33	DIODE 1SS133T-77				
D812	8-719-991-33	DIODE 1SS133T-77				
D813	8-719-110-17	DIODE RD10ESB2				
D814	8-719-991-33	DIODE 1SS133T-77				
D815	8-719-991-33	DIODE 1SS133T-77				
D816	8-719-991-33	DIODE 1SS133T-77				
D817	8-719-991-33	DIODE 1SS133T-77				
		< IC >				
IC811	8-759-145-58	IC uPC4558C				
IC812	8-759-584-39	IC TDA7296				
		< JACK >				
J811	1-774-785-11	JACK, PIN 1P (SIGNAL INPUT, WOOFER)				
		< IC LINK >				
PS831	1-532-637-00	LINK, IC 1.0A (US, CND)				
		< TRANSISTOR >				
Q811	8-729-011-92	TRANSISTOR	2SC2001TP-K1K2			
Q812	8-729-011-92	TRANSISTOR	2SC2001TP-K1K2			
Q813	8-729-119-78	TRANSISTOR	2SC403SP-51			
Q814	8-729-011-92	TRANSISTOR	2SC2001TP-K1K2			
Q815	8-729-119-78	TRANSISTOR	2SC403SP-51			
Q816	8-729-037-34	TRANSISTOR	KRA107M			
Q817	8-729-036-58	TRANSISTOR	KRC102M-AT			
Q818	8-729-036-58	TRANSISTOR	KRC102M-AT			
		< RESISTOR >				
R801	1-249-429-11	CARBON	10K	5%	1/4W	
R802	1-249-429-11	CARBON	10K	5%	1/4W	
R803	1-249-429-11	CARBON	10K	5%	1/4W	
R804	1-247-815-91	CARBON	220	5%	1/4W	
R805	1-249-417-11	CARBON	1K	5%	1/4W	
R806	1-249-418-11	CARBON	1.2K	5%	1/4W	
R807	1-249-437-11	CARBON	47K	5%	1/4W	
R808	1-249-437-11	CARBON	47K	5%	1/4W	
R809	1-249-429-11	CARBON	10K	5%	1/4W	
R810	1-249-426-11	CARBON	5.6K	5%	1/4W	
R811	1-249-425-11	CARBON	4.7K	5%	1/4W	
R812	1-247-903-00	CARBON	1M	5%	1/4W	
R813	1-249-417-11	CARBON	1K	5%	1/4W	
R814	1-249-429-11	CARBON	10K	5%	1/4W	
R815	1-249-419-11	CARBON	1.5K	5%	1/4W	
R816	1-247-843-11	CARBON	3.3K	5%	1/4W	
R817	1-249-413-11	CARBON	470	5%	1/4W	
R819	1-247-863-91	CARBON	22K	5%	1/4W	
R820	1-249-417-11	CARBON	1K	5%	1/4W	
R821	1-247-863-91	CARBON	22K	5%	1/4W	
R822	1-247-863-91	CARBON	22K	5%	1/4W	
R823	1-249-435-11	CARBON	33K	5%	1/4W	
R824	1-249-429-11	CARBON	10K	5%	1/4W	
R825	1-249-441-11	CARBON	100K	5%	1/4W	
R827	1-247-863-91	CARBON	22K	5%	1/4W	
R828	1-249-427-11	CARBON	6.8K	5%	1/4W	
R829	1-249-429-11	CARBON	10K	5%	1/4W	

****

MISCELLANEOUS
****

Ref. No.	Part No.	Description
* 7	1-790-785-11	WIRE, PARALLEL (FFC) 9P
* 58	1-790-787-11	WIRE, PARALLEL (FFC) 12P
* 108	1-791-531-11	WIRE, PARALLEL (FFC) 21P
* 109	1-791-532-11	WIRE, PARALLEL (FFC) 23P
* 110	1-790-788-11	WIRE, PARALLEL (FFC) 26P
208	1-667-954-11	FLEXIBLE BOARD
⚠ 210	8-583-028-02	OPTICAL PICK-UP KMS-260A (for MD)
* 253	1-790-786-11	WIRE, PARALLEL (FFC) 8P
256	1-452-899-11	MAGNET
* 273	1-790-784-11	WIRE, PARALLEL (FFC) 16P
* 279	1-791-028-11	WIRE, PARALLEL (FFC) 11P
⚠ 301	8-848-483-05	OPTICAL PICK-UP KSS-213C (for CD)
305	X-2646-381-1	SPINDLE MOTOR ASSY (SPINDLE) (INCLUDING M1002) (for CD)
⚠ 364	1-575-651-11	CORD, POWER (AEP, UK)
⚠ 364	1-783-531-21	CORD, POWER (US, CND)
⚠ 456	1-575-651-11	CORD, POWER (CND, AEP, UK)
⚠ 456	1-783-531-21	CORD, POWER (US, CND)
HR901	1-500-502-11	HEAD, OVER WRITE
LCD500	1-418-423-11	DISPLAY PANEL UNIT
M101	A-4672-475-A	MOTOR ASSY, SPINDLE (SPINDLE) (for MD)
M102	A-4672-474-A	MOTOR ASSY, SLED (SLED) (for MD)
M103	X-4949-264-1	MOTOR ASSY, LOADING (LOADING)
M703	1-698-999-11	MOTOR, DC (CD LID OPEN/CLOSE)
M1001	X-2625-769-1	SLED MOTOR (WITH GEAR) ASSY (SLED) (for CD)
S102	1-762-148-21	SWITCH, PUSH (2 KEY) (REFLECT RATE/PROTECT DETECT)
SP391	1-529-363-11	SPEAKER (L-CH)
SP392	1-529-363-11	SPEAKER (R-CH)
SP800	1-529-134-11	SPEAKER (10cm) (SUPER WOOFER)

****

****
HARDWARE LIST
****

Ref. No.	Part No.	Description
#1	7-621-770-87	SCREW +P 2.6X5
#2	7-621-773-86	SCREW +B 2.6X4
#3	7-685-133-19	SCREW (DIA. 2.6) (IT3B)
#5	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S
#6	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S
#7	7-685-547-19	SCREW +BTP 3X10 TYPE2 N-S
#8	7-685-646-79	SCREW +BVTP 3X8 TYPE2
#9	7-685-647-79	SCREW +BVTP 3X10 TYPE2
#11	7-685-648-79	SCREW +BVTP 3X12 TYPE2
#13	7-685-659-91	SCREW +BVTP 4X8 TYPE2 TT(B)
#14	7-685-862-09	SCREW +BVTT 2.6X6 (S)
#15	7-685-864-09	SCREW +BVTT 2.6X10 (S)
#16	7-621-772-20	SCREW +B 2X5
#17	7-621-772-40	SCREW +B 2X8
#18	7-627-852-08	SCREW, PRECISION +P 1.7X2.5

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
#19	7-685-872-09	SCREW +BVTT 3X8	
#20	7-623-108-15	W3, MIDDLE	
#21	7-623-208-22	SW3, TYPE2	

****

ACCESSORIES & PACKING MATERIALS
****

Part No.	Description
1-754-094-11	ANTENNA, LOOP
1-501-695-11	ANTENNA, FM (US, CND)
1-501-594-11	ANTENNA (FM) (AEP, UK)
1-791-562-11	CORD, CONNECTION (LSP)
1-770-012-11	ADAPTOR, CONVERSION PLUG 3P (UK)
1-791-563-11	CORD, CONNECTION (S/W)
A-3250-945-A	REMOTE CONTROL UNIT (RMT-CMD55A)
3-027-153-11	LID, BATTERY CASE (RMT-CMD55A)
3-866-600-11	MANUAL, INSTRUCTION (ENGLISH) (US)
3-866-600-12	MANUAL, INSTRUCTION (ENGLISH) (US, CND)
3-866-600-21	MANUAL, INSTRUCTION (ENGLISH, SPANISH) (AEP, UK)
3-866-600-31	MANUAL, INSTRUCTION (FRENCH, GERMAN) (AEP)
3-866-600-41	MANUAL, INSTRUCTION (DUTCH, PORTUGUESE) (AEP)
3-866-600-51	MANUAL, INSTRUCTION (ITALIAN) (AEP)
3-866-600-61	MANUAL, INSTRUCTION (SWEDISH, DANISH) (AEP)
3-866-600-71	MANUAL, INSTRUCTION (FRENCH) (CND)

9-927-135-12

Sony Corporation
Personal Audio Company

99H0573-1
Printed in Japan © 1999. 8
Published by General Engineering Dept.